

## **1. Elenco dei Lavori scientifici di Filippo Spagnolo (Coordinatore del Dottorato) 2002-2006**

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2. **Spagnolo F.** – Bazzini L. – Scimone Aldo, *Il mondo dei numeri - Teoria e Didattica*, Ed. Palumbo, 2006. (pp 1-116) ISBN 978-88-6017-020-0.

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1. **Spagnolo F, et alii**, Editors of "Proceedings of the 4th Mediterranean conference on Mathematics Education". 2 Volumes, pag. 696: Volume I, ISBN 9963-7770-7-4; Volume II, ISBN 9963-7770-8-2. Palermo January 2005.
2. **F. Spagnolo**, G. Bagni & F. Furinghetti, *History and epistemology in mathematics education*, Italian Research and Teacher Training in Mathematics Education in Italy 2000-2003. (Presentato all'ICMI-10, Copenhagen), UMI-CIIM, 2004. Ghisetti&Corvi, Milano, pp. 170-192.

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7. **Spagnolo F.** et alii, *Il recupero del significato nell'insegnamento/apprendimento delle Matematiche nella scuola media*, *Didattica delle Scienze*, n.224, pagg. 60-62, Febbraio 2003, anno XXXVIII, Editrice La Scuola, Brescia.
8. **Spagnolo F.** – **Ajello M.**, *Common sense and fuzzy logic: some experimental observations*, *Zbornik 5, Bratislavského seminára z teórie vyučovania matematiky*, Bratislava, 2003, pp. 9-18.
9. **F. Spagnolo** et alii, *L'analisi implicativa per lo studio di una esperienza didattica in statistica*, *Quaderni di Ricerca in Didattica* n.13, Palermo. <http://math.unipa.it/~grim/quaderno14.htm>
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11. **F. Spagnolo**, *L'insegnamento della "Didattica della matematica" nei corsi di laurea di Scienze della Formazione primaria*, Progetto strategico CNR, responsabile scientifico, 2004. To appear.
12. **Spagnolo F.** et alii, *Reasoning patterns and logical-linguistic questions in European and Chinese cultures: Cultural differences in scholastic and non-scholastic environments*, *Mediterranean Journal for Mathematics Education*, Cyprus Mathematical Society (ISSN 1450-1104), Vol. 4, N. 2, pp. 27-65, 2005.
13. **Spagnolo F.** & E. Malisani, *Unknow or "thing that varies?" The implicative statistic analysis and the factorial analysis of the correspondences in a research in mathematics education*, *Acta Didactica Universitatis Comenianae (Mathematics)*, 5, 2005, ISBN 80-223-2137-0, Comenius Univesrity Slovakia, pp 69-83.

14. **Spagnolo F.**, L'analyse statistique implicative: une des methods d'analyse des données en didactique, Acta Didactica Universitatis Comeniana (Mathematics), 5, 2005, ISBN 80-223-2137-0, Comenius University Slovakia, pp 1-22.
15. **Spagnolo F.**, Silversten P., Trecansky I., TDS applicated in international mobilities of future teachers, Acta Didactica Universitatis Comeniae (Mathematics), Comenius University Slovakia, 2006, Issue 6, pagg 87-100. ISBN 80-223-2138-9.
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3. **Spagnolo F.** et alii, Main results of the mobility phase, "Teachers-to-be, Competences of Secondary School Teachers: European Views, presentation of the results of the project research", Palumbo Editore, Palermo, 2006, pp. 121-131 (ISBN 88-6017-016-8).

#### **General Conferences**

1. **Spagnolo F.**, *Fuzzy logic, Fuzzy Thinking and the teaching/learning of mathematics in multicultural situations*, General conference, Brno (Czech Republic), September 2003, International Conference on Mathematics Education into the 21<sup>st</sup> Century, pp.17-28.
2. **Spagnolo F.**, *L'analisi statistica implicativa: uno dei metodi di analisi dei dati nella ricerca in didattica delle matematiche*, Proceedings Troisième Rencontre Internationale A.S.I. (Analyse Statistique Implicative), Palermo 6-8 Octobre 2005, Suppl. al n.15 "Quaderni di Ricerca in Didattica", ISSN 1592-5137. (pp. 25-52)
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#### 4. *Elenco dei Lavori scientifici di Rossana Tazzioli* 2002-2006

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#### ***14. Elenco dei Lavori scientifici di Anna De Ambrosis***

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Per gli stranieri viene incluso anche il Curriculum Vitae

**15. Elenco dei Lavori scientifici e CV completo di Ivan Trenčanský  
2002-2006**

**Nom:** TRENČANSKÝ  
**Prénom:** Ivan  
**Date de naissance:** 24 jún 1943  
**Lieu de naissance:** Nitrianska Streda, okr. Topoľčany  
**Adress du travail:** KZDM MFF UK  
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**Adresse privé:** Ivan Trenčanský  
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++4 21 908 685 021

*Etudes postuniversitaires:*

- 1989 -** *Maître de conférence de la Didactique des mat de la Faculté de Mathématiques, Physique et l'Informatique de l'Université Comenius, Bratislava*  
**1981 -** *CSc- PhD de la domaine de la Didactique des mat de la Faculté de Mathématiques, Physique et l'Informatique de l'Université Comenius, Bratislava*  
**1974 -** *RNDr. De la domaine Géométrie et Topologie, Faculté de sciences de l'Université Comenius, Bratislava*

**Connaissance des langues :**

- slovaque
- francaise
- russ
- anglais – passivement
- TI :MicrosoftWord, Amipro, MisroStation, CabriGeometria, Derive, Calculatrices graphiques, CHIC, ...
- Reseau d'Internetovej en général, les adresses edicatives, des apletes

**Travail:**

- 1965-1967 - Professeur des methématiques, Lycée Topoľčany  
1967-1980 - Maître d'assistant, Département de la Géométrie, Faculté des Sciences Université Comenius Bratislava  
1979-1980 - Séjour d'études-6 mois, Univerzité P. a M. Curie, Paris VI (orientation de la Didactique des mathématiques sous la direction du prof. Gustave Choquet,,

- 1980–1989 - Maître d'assistant, Département de la Didactiques des mathématiques, Faculté des Mathématiques, de la Physiques et de l'Informatique, Université Comenius, Bratislava
- 1989 - Maître dd conférences, Département de la Didactiques des mathématiques, Faculté des Mathématiques, de la Physiques et de l'Informatique, Université Comenius, Bratislava
- 1995-1999 - Professeur des methématiques (temps partiele, Lycée bilangues franco-slovaque, Metodova ul., Bratislava
- 1997-2004 - Directeur du Département de la Didactiques des mathématiques, Faculté des Mathématiques, de la Physiques et de l'Informatique, Université Comenius, Bratislava
- 2002- 2002 Ministère de l'Éducation de la République des Seychelles, consultant – 2 mois
- 2004- Directeur du Département de l'algebre, géométrie et de la Didactiques des mathématiques, Faculté des Mathématiques, de la Physiques et de l'Informatique, Université Comenius, Bratislava
- 2006- Professeur de la Faculté des Mathématiques, de la Physiques et de l'Informatique, Université Comenius, Bratislava

### **Enseignement**

1. Les cours et les traveaux pratique de la didactique de géométrie descriptive
2. Les cours de l'Applications de la géométrie descriptive
3. Seminaire de la Theorie des situations didactique
4. Seminaire des mathématiques
5. Gestion des theses de diplôme (4 étudiants)
6. Gestion des theses de „petit doctorat“ – PaedDr (2-3 chaque ennée)
7. Gestion des theses de PhD ( actuellement 5 étudiants)

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10. Trenčanský I., Porubská E., Piják V., Lamoš F., Hrdina L., Matematika I pre študijné odbory SŠP, SPN Bratislava, 1982, 16%
11. Trenčanský I., Piják V., Hrdina L., Porubská E., Nosko J., Matematika II, učebnica pre stredné školy pre pracujúcich (verzia v jazyku maňarskom), SPN Bratislava, 1983, 42%
12. Trenčanský I., Nosko J., Hrdina L., Porubská E., Piják V., Matematika II pro studijní odbory stœdních škol pro pracující, SPN Praha, 1983, 41%
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14. Trenčanský I., Porubská E., Vencko J., Hutka J., Cirjak M.,Matematika III, učebnica pre študijné odbory stredných škôl pre pracujúcich (maďarská verzia), SPN Bratislava, 1984, 25%
15. Trenčanský I., Porubská E., Cirjak M., Hutka J., Vencko J.,Matematika III pre ŠOSS pre pracujúcich, SPN Bratislava, 1984, 34%
16. Trenčanský I., Porubská E., Cirjak M., Hutka J., Vencko J.,Matematika III pro studijum absolventù, SPN Praha, 1984, 32 %

17. Trenčanský I., Porubská E., Lamoš F., Medek V., Reháková E., Matematika pro střední odborní školy a studijní odbory středních odborných učilišť, 8. část, SPN, Praha, 1986, 28%
18. Trenčanský I., Porubská E., Reháková E., Medek V., Lamoš F., Matematika pre SOŠ, 8. časť, SPN Bratislava, 33%
19. Trenčanský I., Porubská E., Lamoš F., Piják V., Hrdina L., Matematika I a dolgozók közepiskolája számára, SPN Bratislava, 1986, 16%
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22. Trenčanský I., Porubská E., Vencko J., Cirjak M., Huťka J., Matematika a dolgozók episkolája számára, SPN Bratislava, 1989, 34%
23. Trenčanský I., Hrdina L., Nosko J., Porubská E., Piják V., Matematika 2 pro studium absolventů učebních oborů, SPN Praha, 1989, 38%
24. Trenčanský I., Porubská E., Cirjak M., Huťka J., Vencko J., Matematika 3 pre študijné odbory stredných škôl pre pracujúcich, SPN Bratislava, 1989, 32%
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26. Trenčanský I., Porubská E., Piják V., Hrdina L., Nosko J., Matematika II a dolgozók szakközépiskolája számára, SPN Bratislava, 1989, 38%
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## *16. Elenco dei Lavori scientifici e CV completo di Viera Uherčíková 2002-2006*

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<b>Education</b>	1992 – 1996	secondary Grammar School of P.O. Hviezdoslav, Kežmarok, Slovak Republic
	1996 – 2001	aculty of Natural Sciences, Comenius University, Bratislava, Slovak Republic (M.Sc. course in Teacher-Education in Mathematics and Biology)
	2001 – 2003	aculty of Mathematics, Physics and Informatics, Comenius University, Bratislava, Slovak Republic (Ph.D. study in Theory of Education in Mathematics)
<b>Work's Practices</b>	2002 – present	ilingual Secondary Grammar School of Metodova, Bratislava, Slovak Republic (secondary school teacher of mathematics in French language)
	2004 – present	aculty of Mathematics, Physics and Informatics, Department of Algebra, Geometry and Didactics of Mathematics, Comenius University, Bratislava, Slovak Republic (university teacher/assistant lecturer)
	2004 – present	ditorial works – Zborník Bratislavského seminára z teórie vyučovania matematiky, Acta Didactica Universitatis Comeniana-Mathematics
<b>Professional qualifications</b>	M.Sc. Thesis:	<i>Photochemical Activity of isolated Chloroplasts in the Species Karwinskia humboldtiana, Zucc.</i>
	Final State Examination:	Biology, Didactics of Biology, Mathematics, Didactics of Mathematics
	Rigorous Thesis:	<i>Application of vector calculus in problem solving of planimetry and stereometry at secondary school</i>
	Ph.D. Examinations:	Linear Algebra, Theory of Sets, Theory of Didactic Situations, Creation of didactical tests
	Ph.D. Thesis:	<i>Analytic geometry and vector calculus in teaching mathematics at secondary school</i>
		<i>European Teacher: initial teacher training for future teachers of secondary school, Socrates program Comenius 2.1</i>
<b>Others</b>	Certificates:	
	Language knowledge:	French (actively), English (actively), Russian (passive), German (passive)
	PC skills:	MS Word, Excel, Power Point; creation of HTML sites, internet

## **Publications**

### **6 the most important works:**

- Uherčíková V.: Hravá geometria, SPN Bratislava, 1991, knižka pre ZŠ, 130 strán. **Quotations 8**
- Uherčíková V., Dufek M.: Reliabilita testov, Acta Mathematica Universitatis Commenianae č. 38, Bratislava, 1981, str. 129-142. **Quotations 4**
- Uherčíková V., Grác J.: Mechanizmy modelom navodenej činnosti v experimentálnych komparáciách, Čs. psychológia č. 4. roč. XXXII, Praha, 1988, str. 304-320. **Quotations 7**
- Koman M., Kittler J., Kuřina F., Tichá M., Uherčíková V.: Matematika IV. Pokusní učební text pro 4. roč. základní školy, JČsMF, Kabinet pro didaktiku matematiky MÚ ČSAV, Praha, 1986. **Quotations 10**

5. Uherčíková V.: Využitie mikropočítačov v školstve a tvorba pedagogického softwaru, Zborník: T. Šalát a kol.: Didaktické a metodologické aspekty vyučovania matematiky na VŠ univerzitetného smeru, vydávaný ÚRVŠ SSR, Bratislava, 1985, str. 44-49. **Quotations 14**

6. Uherčíková V., Zelina M.: Využitie mikropočítačov na prehlbovanie učiva matematiky so spätnoväzobným systémom hodnotenia vedomostí žiakov, Priebežná správa rezortnej výskumnej úlohy MŠ SSR RŠ-X-03/3, Bratislava, 1988, 40 strán.

**Quotations 2**

### **5 the most important works in the last 5 years:**

1. Guziová K., Uherčíková V., Haverlík K. I.: Program výchovy a vzdelávania detí v materských školách, Bratislava, MŠ SR, 1999. **Quotations 14**

2. Uherčíková V.: Rozvíjanie priestorovej predstavivosti a jej význam v príprave učiteľov. In: Zborník príspevkov z konferencie Autentické vyučovanie a využitie medzipredmetových vzťahov vo vyučovaní matematiky, Banská Bystrica, Pedag. fakulta UMB, 2000. **Quotations 7**

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## ***17. Elenco dei Lavori scientifici e CV completo di Kostyrko Pavel 2002-2006***

**Prof. RNDr. Pavel Kostyrko, DrSc., Department of Algebra, Geometry and the Didactics of Mathematics, Faculty of Mathematics, Physics and Informatics, COMENIUS UNIVERSITY BRATISLAVA, Slovakia**

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**Family name, first name:** Kostyrko Pavel  
**Permanent address:** Mikovíniho 9, 831 02 Bratislava, Slovakia  
**Date of birth:** 3 July 1941  
**Marital status:** married  
**Education:** 1959 – 1964 Comenius University, Bratislava  
1968 RNDr.  
1972 PhD.  
1980 Docent (= Reader)  
1989 DrSc.  
1996 Professor

Member of JSMF (Union of Slovak Mathematicians and Physicist)

**Mother tongue:** Slovak

**Other languages:** English, Russian

**Total number of years of experience:** 39

**Present position:** Professor of Mathematics, Department of Algebra, Geometry and the Didactics of Mathematics, Faculty of Mathematics, Physics and Informatics, COMENIUS UNIVERSITY BRATISLAVA, Slovakia, 842 48 Bratislava. I am engaged in the undergraduate, graduate and postgraduate study. The main area of my scientific investigation is the theory of real functions.

**Publications:** I have published (or submitted for publication) 54 original papers, some of them with coauthors. I presented my results at conferences in Slovakia, and foreign countries. I have published some informal or popular articles and university texts.

### **Publications**

#### **CD1 Vedecské práce v domácich časopisoch a zborníkoch**

CD1 O funkciách, grafy ktorých javljajutca zamknutými množstvami, Čas. pěst. mat. 89 (1964), 426-432 (spolu s T. Šalátom, 50%).

CD2 O funkciách, grafy ktorých javljajutca zamknutými množstvami II, Acta fac. rer. nat. Univ. Com. X (1965), 51-61 (spolu s T. Neubrunnom a s T. Šalátom, 33%).

CD3 O nektorých prostranstvach s metrikou tipa Bera, Mat.-fyz. časopis 16 (1966), 143-153.

CD4 Zаметка об абсолютной сходимости рядов, Matemat. časop. 17 (1967), 287-296.

- CD5 Aplikacija ergodičeskoj teorii v teorii cepnych drobej, Acta fac. ref. nat. Univ. Com. XIX (1968), 147-156.
- CD6 A note on the functions with closed graphs, Čas. pěst. mat. 94 (1969), 202-205.
- CD7 Indicatrix of Banach and a space of continuous functions, Matemat. časop. 19 (1969), 336-339.
- CD8 Remarks on the theory of real functions, Acta fac. rer. nat. Univ. Com. XX (1969), 81-89 (spolu s T. Šalátom a J. Smítalom, 33%).
- CD9 On convergence of transfinite sequences, Matemat. časop. 21 (1971), 233-239.
- CD10 O postupnostiach prirodzených čísel s ohraničeným počtom prvočíselných deliteľov, Čas. pěst. mat. 97 (1972), 332-333.
- CD11 A remark to Phytagoren rationals, Acta fac. rer. nat. Univ. Com. XXVI (1972), 117-119.
- CD12 On some classes of sets of natural numbers, Acta fac. rer. nat. Univ. Com. XXIX (1974), 85-89.
- CD13 Note to a problem of H. Steinhaus, Acta fac. rer. nat. Univ. Com. XXX (1975), 63-70 (spolu s I. Haverlíkom, 50%).
- CD14 A characteristic property of Banach spaces, Acta fac. rer. nat. Univ. Com. XXXIII (1977), 183-185.
- CD15 Note to the exponent of convergence, Acta fac. rer. nat. Univ. Com. XXXIV (1979), 29-38.
- CD16 Some properties of oscillation, Math. Slovaca 30 (1980), 157-162.
- CD17 Remarks on the theory of real functions, Acta fac. rer. nat. Univ. Com. XXXVI (1980), 7-23 (spolu s T. Neubrunnom, T. Šalátom a s J. Smítalom, 25%).
- CD18 A note on the convergence of transfinite sequences, Math. Slovaca 31 (1981), 97-100.
- CD19 On  $f$ -thin sets, Čas. pěst. mat. 107 (1982), 1-6.
- CD20 On metrizable convergence of functional transfinite sequences, Acta Math. Univ. Com. XL-XLI (1982), 225-228.
- CD21 An application of Cramer's rule on a class of linear maps, Acta Math. Univ. Com. XLII-XLIII (1983), 111-113.
- CD22 On continuity points of limit functions, Acta Math. Univ. Com. XLIV-XLV (1984), 137-145 (spolu s J. Malíkom a s T. Šalátom, 33%).
- CD23 On unconditional convergence of series in Banach lattices, Math. Slovaca 35 (1985), 67-75.
- CD24 On Lipschitz selections of Lipschitz multifunctions, Acta Math. Univ. Com. XLVI-XLVII (1985), 131-135 (spolu s J. Guričanom, 50%).
- CD25 On points of absolute continuity of discontinuous functions, Acta Math. Univ. Com. L-LI (1987), 83-91.
- CD26 On a local form of a functional equation with the harmonic mean, Acta Math. Univ. Com. LII-LIII (1987), 243-248.
- CD27 On a local form of Lobachevski's functional equation, Čas. pěst. mat. 113 (1988), 179-183.
- CD28 Quasicontinuity and some classes of Baire 1 functions, Com. Math. Univ. Carolinae 29 (1988), 601-609.
- CD29 On a typical property of some function spaces, Acta Math. Univ. Com. LIV-LV (1988), 211-215.
- CD30 Mean value theorem and Lagrange sets of real functions, Acta Math. Univ. Com. LVIII-LVIX (1991), 77-93 (spolu s L. Holou, B. J. Powellom a s T. Šalátom, 25%).
- CD31 On strict derivatives, Acta Math. et. Inform. 1 (1992), 27-31 (spolu s J. Tóthom, 50%).
- CD32 An abstract form of a conditional Cauchy's equation, Tatra Mountains Math. Publ. 2 (1993), 61-64.
- CD33 On additive functions defined on a commutative group, Acta Math. 2 (1995), 15-21 (Nitra).
- CD34 On convergence preserving transformations of infinite series, Math. Slovaca 46 (1996), 239-243.
- CD35 Notes on some problems of Solomon Marcus, Tatra Mountains Math. Publ. 8 (1996), 165-168.
- CD36 A typical property of some symmetric spaces, Tatra Mountains Math. Publ. 19 (2000), 91-95.
- CD37  $I$ -convergence and  $I$ -continuity of real functions, Acta Math. 5 (2002), 43-50 (Nitra, spolu s V. Balážom, J. Červeňanským a T. Šalátom).
- CD38 Convergence fields of regular matrix transformation, Tatra Mountains Math. Publ. 28 (2004), 153-157.
- CD 39  $I$ -convergence and extremal  $I$ -limit points, Math Slovaca, 55 (2005), 443-464 (spolu s M. Mačajom, T. Šalátom a M. Slezíakom)
- CD 40 On rearrangements of non-absolutely convergent series, Tatra Mt. Math Publ. (v tlači)
- CD 41 Convergence fields of regular matrix transformation 2 (submitted)

#### **Vedecké práce v zahraničných časopisoch a zborníkoch**

- CZ1 On symmetric derivative, Coll. Math. XXV (1972), 265-267.
- CZ2 Density of one graph along another and some classes of closure spaces of functions, Revue Roumaine de Math. pures et appl. XVII (1972), 721-730 (spolu s T. Neubrunnom a s T. Šalátom, 33%).
- CZ3 On locally symmetric and symmetrically continuous functions, Real Anal. Exchange Vol. 6 (1980-81), 67-76 (spolu s T. Neubrunnom, T. Šalátom a s J. Smítalom, 25%).
- CZ4 On the exponent of convergence, Rendiconti del Circolo Matematico di Palermo, Serie II, XXXI (1982), 187-194 (spolu s T. Šalátom, 50%).

- CZ5 On the structure of some function spaces, Real Anal. Exchange Vol. 10 (1984-85), 188-193 (spolu s T. Šalátom, 50%).
- CZ6 On a local form of Jensen's functional equation, Aequationes Math. 30 (1986), 65-69.
- CZ7 The symmetric derivative and the Darboux property, Real Anal. Exchange Vol. 13 (1987-88), 305-309.
- CZ8 Symmetric derivatives are uniformly closed, Revue Roumaine de Math. pures et appl. XXXIV (1989), 729-731.
- CZ9 Generalized Jensen's and Lobachevski's functional equations and their local forms, Radovi Matematički Vol. 5 (1989), 5-13.
- CZ10 On locally symmetric and locally Jensen functions, Real Anal. Exchange Vol. 17 (1991-92), 405-408.
- CZ11 There is no strongly locally antisymmetric set, Real Anal. Exchange Vol. 17 (1991-92), 423-425.
- CZ12 Approximate symmetric derivatives are uniformly closed, Real Anal. Exchange Vol. 17 (1991-92), 652-656.
- CZ13 I-convergence, Real Anal. Exchange Vol. 26 (2000-01), 669-686 (spolu s T. Šalátom a W. Wilczyńskim).
- CZ14 On statistical limit points, Proc. Amer. Math. Soc. 129, No.9, 2647-2654 (2001) (spolu s M. Mačajom, T. Šalátom a O. Strauchom).
- CZ15 Remarks on transfinite sequences of functions that preserve convergence, Acta et Comm. Univ. Tartuensis de Math. Vol. 7 (2003), 79-86 (spolu s J. Činčúrom a T. Šalátom).
- CZ16 A note on the Banach's subgroup theorem, Report on Real Analysis, Rowy 2003, 109-114 (Lodz 2004).

## *18. Elenco dei Lavori scientifici e CV completo di Soňa Čeretková 2002-2006*

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**Title:** PaedDr., PhD.  
**Born:** 11th March 1960, Nitra, Slovakia  
 married, two children 18 and 14  
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 Department of Mathematics  
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 949 74 Nitra  
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 tel.: 00421 905 509 598  
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### **Education**

- 1979 Final examination at secondary grammar school, Nitra
- 1984 Doctorate degree as the teacher of mathematics and biology, Pedagogical Faculty, Nitra, Slovakia
- 2000 PhD examination in Theory of Mathematics Education, University of Constantine the Philosopher, Nitra, Slovakia, subjects: linear algebra, graph theory, elements of theory of math education.
- 2003 PhD thesis: Word Problems in Teaching Mathematics and Their Place in Textbooks

### **Other Education**

- 1997 – 1999 Diploma of post graduate study: Innovation in Education, Hogeschool Helicon, Zeist, Netherlands

### **Workexperience**

- 1984-1985 mathematics secondary school teacher
- 1985 – 1993 lecturer, assistant on Department of Mathematics, Pedagogical Faculty, Nitra
- since 1994 assistant on Department of Mathematics, Faculty of Natural Sciences, University of Constantine the Philosopher, Nitra, Slovakia

**teaching subjects:** linear algebra, elementary arithmetics, elementary geometry, elementary mathematics, didactics of mathematics, financial mathematics for future teachers of math, work with math gifted pupils, special seminar of didactics of mathematics, supervisor of practice on primary and secondary schools



## Other Experiences

since 1997 member of group preparing new Slovak textbooks of mathematics for children of the age 10 – 15

## International projects

1998 – 2001

TEMPUS AC\_JEP 13425 – 98 Reform of Mathematics Teacher Training in Slovakia

participated universities: TU Wien, Austria, Universidad de Murcia, Spain, University of Matej Bell, B. Bystrica, Slovakia

TEMPUS PHARE AC\_JEP-13101-98 Innovation of Teacher Training in Physics and Mathematics

March 2001

CEEPUS project: University of Debrecen, Institute of Mathematics and Informatics, HU, Prof. Andras Kovacs

May 2001

Socrates/Erasmus Teachers Mobility: South Bank University, London, UK, Centre for Education, Prof. Steven Lerman

September 2001 – December 2003

Innovation of University Courses of Didactics of Mathematics, Action Slovakia-Austria, together with Institute of Mathematics and Informatics, Vienna University, AU

coordinator SK

October 2003 – December 2006

Socrates Comenius 2.1: Promote MSc – Provide Mathematics and Science through Exciting Materials, participated

Universities: Sundreland University, UK, Vienna University, AU, Palacky University, CZ

coordinator SK

May 2004 – May 2005

New trends in didactics of mathematics, Action Slovakia-Austria, together with Institute of Mathematics and Informatics, Vienna University, AU

coordinator SK

November 2004

Socrates Erasmus Teacher's Mobility, Agder University College, Kristiansand, Norway, prof. Barbro Gevrholm, prof.

Maria-Luisa Cestari

## Publications

1. Čeretková, S., Fulier, J., Tóth, J.T.: On the Certain Subsets of the Space of Metrics, Zborník, ACTA ACADEMIAE PAEDAGOGICAE AGRIENSIS, NOVA SERIES TOM. XXIV., EGER, Maďarsko, 1997, str. 111. – 115.
2. Čeretková, S., Kmeťová, M.: How to Innovate the Basic Mathematics Curriculum, Proceedings of the Second Regional Workshop on Teaching Strategies in Higher Education: *The Role of Innovation*, Civic Education Project Hungary, October 1998, str. 105. – 109.
3. Čeretková, S., Drlík, P.: Krúžky programovania na základnej škole, Matematika a Fyzika ve škole, 18, 1987/88, str. 23. – 28.
4. Čeretková, S.: O istej modifikácii Steinhausovho problému, Zborník Pedagogickej fakulty v Nitre, Matematika 5, 1991, str. 113. – 118.
5. Šedivý, O., Čeretková, S.: A Barycentre and It's Using in Solving Geometrical Problems, Acta Mathematica č.2, University of Education, Faculty of Natural Sciences, Nitra 1995, str. 105. – 115.
6. Šedivý, O., Čeretková, S.: Research into some issues of didactics of mathematics, Acta Didactica 1, 1995, Fpv VŠPg Nitra, str. 19. – 24.
7. Čeretková, S.: Špecifiká vyučovania aprobácií s matematikou v prvom ročníku štúdia, zborník z konferencie: Vysokoškolská príprava učiteľov, UMB Banská Bystrica, 1996, str. 335. – 337
8. Šedivý, O., Čeretková, S., Ralík, O.: Priestorová predstavivosť a technické vzdelanie, Zborník vedeckých prác zo seminára na Katedre SPU, Motivácia vo výučbe matematiky na vysokých školách inžinierskeho zamerania, Nitra, jún 1997, str. 25. – 28.
9. Čeretková, S.: O jednom experimente na základnej škole, zborník zo seminára Konceptné otázky integrovaného prirodovedného vzdelávania na Slovensku, Acta Didactica 2, FPv, UKF v Nitre, 1998, str. 83. - 88.
10. Čeretková, S.: Úlohy z finančnej matematiky v učive základnej školy, zborník 1 MEDACTA 1999, str. 179 – 181
11. Čeretková, S.: Geometrická tabuľka a metamorfózna didaktika, Zborník záverečnej konferencie projektu Škola ZMENA, Brezno, máj 1999
12. Čeretková, S.: Metamorfózna didaktika, zborník z medzinárodného seminára Otázky prípravy budúcich učiteľov na pedagogických fakultách v ČR a SR, PF UJP Olomouc, apríl 1999, str.17-19

13. Čeretková, S., Didaktika matematiky a učiteľ matematiky, in Jan Melichar a kol.: Matematika v prípravě učitelů elementární školy, UJEP Ústí nad Labem, 2000, ISBN 80-7044-301-4, str. 118 – 122
14. Čeretková, S.: Aplikačné slovné úlohy v matematike základnej školy, in Acta Didactica 3: Formovanie schopností žiakov v prírodovednom vzdelávaní, UKF Nitra, 2000, ISBN 80-8050-305-2, str. 33-38
15. Čeretková, S.: Základy finančnej matematiky pre budúcich učiteľov matematiky, in Úloha a postavenie matematiky medzi inými vednými disciplínami, KM FEM SPU Nitra 2000, ISBN 80-7137-781-3, str. 21-2
16. Čeretková, S.: Geometrická tabuľka, zborník: II. vedecká konferencia doktorandov FPV UKF v Nitre, február 2001
17. Čeretková, S., Smutná, D.: Čo by mali deviataci vedieť z finančnej matematiky?, Acta Didactica 4, K tvorbe nových programov pre prírodovedné vzdelávanie, Nitra, 2001, ISBN 80-8050-410-5, str. 50-57
18. Čeretková, S., Palumbíny, D.: Teória grafov v učebniciach matematiky pre základné školy, in zborník z medzinárodnej vedeckej konferencie Matematika vo výučbe, výskume a praxi, SPU Nitra, 2002, ISBN 80-8069-040-5, str. 28-32
19. Čeretková, S.: Súčasný trendy v teórii vyučovania matematiky, Acta Didactica 5: Formovanie prírodovedných poznávacích metód, FPV UKF Nitra, 2002, ISBN 80-8050-524-1, str. 83 – 88
20. Šedivý, O., Čeretková, S.: Factors of Quality in Teaching Mathematics in Teachers' Education, In: Quality Education in European Context and the Dakar Follow-up, Proceedings of the International Seminar, CPU Nitra, 2003, ISBN 80-8050-636-1
21. Čeretková, S., Ševčíková, D.: Internet a vyučovanie matematiky, In: Acta Didactica 6: Informačno-komunikačné technológie v prírodovednom vzdelávaní, FPV UKF Nitra, 2003, ISBN 80-8050-643-4, str. 85 – 88
22. Čeretková, S.: Funkčná gramotnosť a vyučovanie matematiky, zborník: Humanizácia a vyučovanie matematiky, zborník príspevkov z vedeckého seminára organizovaného katedrou matematiky 21. mája 2004, FPV UKF v Nitre, 2004, ISBN 80-8050-710-4
23. Čeretková, S.: Graphic communication in school mathematics problems, ACTA DIDACTICA 7, FPV UKF v Nitre, 2004, ISBN 80-8050-766-X, str.5-9, str. 39-44
24. Čeretková, S.: Súčasný trendy v teórii vyučovania matematiky, Reflexia ICME-10, zborník ACTA MATHEMATICA 7, FPV UKF Nitra, 2004, str. 71-74

#### **School Books**

25. Šedivý, O., Čeretková, S., Malperová, M.: Matematika 5, 1. časť, alternatívna učebnica matematiky pre 5. ročník ZŠ schválená MŠ SR, SPN Bratislava 1997, druhé vydanie 1999, tretie vydanie 2000, štvrté vydanie 2002
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27. Šedivý, O., Čeretková, S., Malperová, M.: Matematika pre 5, 2. časť, alternatívna učebnica matematiky pre 5. ročník ZŠ schválená MŠ SR, SPN Bratislava 1998, druhé vydanie 2000, tretie vydanie 2001
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30. 6. Šedivý, O. - Čeretková, S. - Malperová, M. - Bálint, Ľ : Matematika az alap iskola 6. osztálya számára, 1. rész, 1. vydanie. SPN Bratislava 1998
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32. 8. Šedivý, O. - Čeretková, S. - Malperová, M. - Bálint, Ľ : Matematika az alap iskola 6. osztálya számára, 2. rész, 1. vydanie. SPN Bratislava 1999
33. Šedivý, O., Čeretková, S., Bálint, Ľ., Malperová, M.: Matematika 7, 1. časť, alternatívna učebnica matematiky pre 7. ročník ZŠ, MEDIA TRADE, spol. s r.o., SPN Bratislava 1999
34. 10. Šedivý, O. - Čeretková, S. - Malperová, M. - Bálint, Ľ : Matematika az alap iskola 7. osztálya számára, 1. rész, SPN Bratislava 1999
35. Šedivý, O., Čeretková, S., Bálint, Ľ., Malperová, M.: Matematika 7, 2. časť, alternatívna učebnica matematiky pre 7. ročník ZŠ, MEDIA TRADE, spol. s r.o., Bratislava 2000
36. Šedivý, O. - Čeretková, S. - Malperová, M. - Bálint, Ľ : Matematika az alap iskola 7. osztálya számára, 2. rész, SPN Bratislava 2000

37. Šedivý, O., Čeretková, S., Bálint, L., Malperová, M.: Matematika 8, 1. časť, alternatívna učebnica matematiky pre 8. ročník ZŠ, MEDIA TRADE, spol. s r.o., SPN Bratislava 2000
38. Šedivý, O. - Čeretková, S. - Malperová, M. - Bálint, L.: Matematika az alap iskola 8. osztálya számára, 1. rész, SPN Bratislava 2000
39. Šedivý, O., Čeretková, S., Bálint, L., Malperová, M.: Matematika 8, 2. časť, alternatívna učebnica matematiky pre 8. ročník ZŠ, MEDIA TRADE, spol. s r.o., Bratislava 2001
40. Šedivý, O. - Čeretková, S. - Malperová, M. - Bálint, L. : Matematika az alap iskola 8. osztálya számára, 2. rész, SPN Bratislava, 2001
41. 17. Šedivý, O., Čeretková, S., Bálint, L., Malperová, M.: Matematika 9, 1. časť, alternatívna učebnica matematiky pre 9. ročník ZŠ, MEDIA TRADE, spol. s r.o., SPN Bratislava 2001
42. 18. Šedivý, O., Čeretková, S., Bálint, L., Malperová, M.: Matematika 9, 2. časť, alternatívna učebnica matematiky pre 9. ročník ZŠ, MEDIA TRADE, spol. s r.o., SPN Bratislava, 2002
43. Drlík, P., Čeretková, S.: Základy programovania, učebný text pre učiteľov matematiky základných škôl, Bratislava KPÚ, 1986
44. Čeretková, S.: Programovací jazyk Karel, ODPM Nitra, 1987, metodický materiál pre krúžky programovania.
45. Beka, J., Čeretková, S., Markechová, D., Šedivý, O., Šúňová, M.: Zbierka úloh z matematiky na prijímacie skúšky, Učiteľstvo 1. stupňa základnej školy pre školské roky 1997 – 1998, 1998-1999, 1999- 2000, 2000-2001, FPV, UKF v Nitre
46. Csiba, P., Čeretková, S., Hašková, A., Lovászová, G., Turčáni, M., Vallo, D.: Počítačom podporované vyučovanie matematiky, FPV UKF v Nitre, 2003, edícia Prírodovedec č.111, ISBN 80-8050-604-3

### **Proceedings**

1. Čeretková, S., Ulovec, A.: Austrian-Slovakian experiences in teaching certain types of algebra word problems, CERME 3, International Conference of the European Society for Research in Mathematics Education, Bellaria, Italy, 28 Feb.-3. March 2003
2. Čeretková, S., Ulovec, A.: PROMOTE MSc, International Congress in Mathematics Education, ICME-10, Copenhagen, Denmark, 4.-11. júl 2004

### **2005**

**AAB** Monografia vydaná v domácom vydavateľstve

Čeretková, S., Šedivý, O.: Aktuálne problémy teórie vyučovania matematiky, vydavateľ: FPV UKF Nitra, Prírodovedec č. 200, Vydavateľstvo Michala Vaška, Prešov, ISBN 80-8050-923-9, 145 strán

### **AFK** Postery zo zahraničných konferencií

Ulovec, A., Čeretková, S., Brunner, Ch.: Teacher trainees' Matheracy – Real life problems in mathematics teacher education, CERME 4, International Conference of the European Society for Research in Mathematics Education, Sant Feliu de Guíxols, Spain; 17--21 February 2005

### **BCB** Učebnice pre základné a stredné školy

Šedivý, O., Čeretková, S., Malperová, M.: Matematika 5, 1. časť, alternatívna učebnica

matematiky pre 5. ročník ZŠ schválená MŠ SR, SPN Bratislava, piate vydanie 2005, ISBN 80-10-00773-0

Šedivý, O. - Čeretková, S. - Malperová, M. - Bálint, L. : Matematika az alap iskola 6. osztálya számára, 2. rész, SPN Bratislava, druhé vydanie, ISBN 80-1000688-2

Šedivý, O., Čeretková, S., Bálint, L., Malperová, M.: Matematika 8, 1. časť, alternatívna

učebnica matematiky pre 8. ročník ZŠ, MEDIA TRADE, spol. s r.o., SPN Bratislava tretie vydanie 2005, ISBN 80-10-00748-X

Šedivý, O., Čeretková, S., Bálint, L., Malperová, M.: Matematika 9, 1. časť, alternatívna

učebnica matematiky pre 9. ročník ZŠ, MEDIA TRADE, spol. s r.o., SPN Bratislava tretie vydanie 2005, ISBN 80-10-00747-1

### **BED** Odborné práce v domácich recenzovaných zborníkoch

Čeretková, S.: Úloha učebnice vo vyučovaní matematiky (reflexia medzinárodného výskumu), zborník príspevkov z vedeckého seminára, FPV UKF Nitre, 2005, Prírodovedec č. 157, ISBN 80-8050-843-7, str.55-60

Šedivý, O., Čeretková, S.: Modelling in mathematics education, mathematics models, ACTA DIDACTICA 8, FPV UKF v Nitre, 2005, Prírodovedec č.189, ISBN 80-8050-897-6, str. 33-38

#### DAI Dizertačné a habilitačné práce

Čeretková, S.: Aktuálne problémy teórie vyučovania matematiky, habilitačná práca, FPV UKF v Nitre, dátum obhajoby: 10.11. 2005

#### FGB

Čeretková, S.: Výročná správa FPV UKF v Nitre za rok 2004, FPV UKF v Nitre 2005, Prírodovedec č. 172, Vydavateľstvo Michala Vaška, Prešov, 2005, 214 strán, ISBN 80-8050-854-2

Čeretková, S., Javorčeková, K.: A-CENTRUM FPV UKF v Nitre, správa o projekte, FPV UKF v Nitre 2005, Prírodovedec č. 180, Vydavateľstvo Michala Vaška, Prešov, ISBN 80-8050-867-4, 130 strán

## ***19. Elenco dei Lavori scientifici e CV completo di Jozef Fulier 2002-2006***

#### **Basic facts:**

born **22. 9. 1951** in Hlohovec – part of Šulekovo,  
Nationality *Slovak*,  
state *married, 2 children*,

#### **Education, progression of qualification:**

- *Elementary school Šulekovo 1958 – 1967*
- *Secondary school Hlohovec, 1967 - 1970*
- *Faculty of Natural Sciences UK in Bratislava, teaching of academic subjects, certification *mathematics-physics*, 1970 - 1975*
- *RNDr.- Faculty of Mathematics and Physics (FMF) UK in Bratislava, 1980*
- *CSc. – 1986, FMF UK in Bratislava ( Science section 11 – 04 – 8 *Mathematical analysis – differential equations and applications of mathematical analysis*. dissertational work “*Marginal problem in some differential systems*”),*
- *Doc. – 1998, FNS CPU in Nitra (Science section *Theory of Mathematics teaching*, work “*Functions and functional thinking in preparation of Mathematics teacher*”)*
- *Prof. – 2004, CPU in Nitra (Section *Theory of Mathematics teaching*, lecture „*Motivation and creation in Mathematics teaching*“ in VR FPV UKF in Nitra 13. 5. 2003 and in VR CPU 26 .6. 2004) (appointed by President of SR **3. 3. 2004**)*

#### **Occupation:**

- *assistant of Department of Mathematics, Faculty of operation, economics transport and communications College of transport and communications in Žilina, 1975 – 1976,*
- *assistant of Department of Mathematics Faculty of operation and economics University of agriculture in Nitra, 1976 – 1977,*
- *assistant of Department of Mathematics Teaching Faculty in Nitra, later Faculty of Natural Science Constantine the Philosopher University in Nitra, 1977-1997*
- *lecturer of Department of Mathematics FNS CPU in Nitra since 1998 - 2004*
- *professor of Department of Mathematics FNS CPU in Nitra since 2004.*

#### **Appointment at University:**

- *vice-dean FPV UKF in Nitra in 1993 – 1999,*
- *head KM FPV UKF in 1999 – 2002*
- *vice-rector UKF in Nitra since 23. 09. 2002*

#### **Membership in commissions, science council, senates:**

- *Member of Science council of Faculty of Natural Science CPU in 1996-1999 and again since 1999*
- *Member of Science council of and Constantine the Philosopher University, since 1999*
- *Member of Commission for Mathematical Olympiad, since 1993*

#### **Statewide activity**

31. *Member of Statewide commission for Mathematical Olympiad and member of chairmanship of thin commission, since 1993*
32. *Member of Committee of Slovak mathematical society by JSMF since 1986, chairman of Inspection of Committee of Slovak mathematical society, since 2001*

#### **Scientific and educational orientation:**

- *In Scientific field, there is the focus on *Theory of graphs and Theory of differential equations*, with main field nonlinear differential systems and singular marginal problems for differential systems, *Didactics of Mathematics, History of Mathematics, Introduction of Internet and modern computational technique into**

*teaching of mathematics at secondary schools and universities, motivation and creation in teaching of Mathematics, functional thinking in teaching of Mathematics. Now he is a supervisor of 5 PhD. students in field Theory of Mathematics teaching*

- In educational field the focus is on lectures and managing of seminars of Mathematical analysis, Differential equations, Numerical mathematics, History of Mathematics. Theses (Mgr.): 53, rigorous work (PaedDr): 6. He is supervisor (5) of PhD. studying for science department *Theory of Mathematics teaching*. Number of finished PhD. students: 1 PhD.

#### **Participation in solution of scientific projects in latest 10 years:**

##### • **International**

1. **AGI Project Tempus Phare AC\_ JEP-13425-98** "Reform of mathematics teacher training in Slovakia". Cooperation of universities: UMB Banská Bystrica, UKF Nitra (SR), University in Murcia (Spain), Technical University in Vienna (Austria). Main coordinator: V. JANIŠ (B. Bystrica ), institutional coordinator for UKF J. FULIER (*solved*)
2. **AGI Project Tempus Phare AC\_ JEP-13101-98** "Innovation of teacher training in Physics and Maths". Cooperation of universities: UK Bratislava, UKF Nitra (SR), University of B. Pascal in Clermond- Ferande (France), University in Vienna (Austria), Lancaster University in Lancaster (G. Britain), University in Palermo (Italy). Main coordinator : J. PIŠŮT (Bratislava)
3. **AGI Project Tempus Phare UM\_ JEP-13-050-98** "Credit based System at Faculties of Science in Slovakia.". Cooperation universities: UK Bratislava, UPJŠ Košice, UKF Nitra (SR), University in Thessaloniki (Greece), University in Gente (Netherlands). Main coordinator: K. ČELLÁROVÁ (Košice),
4. **AGI Project 87391-CP-1-2000-1-PL-Comenius-C31: MATCOMP** – Applications of Information and Communication Technology in Teaching and Learning Mathematics of programme Socrates/Comenius Action 3.1. : European in service training projects. Main coordinator: A. WALAT, Warsaw (Poland). Fellow solver: Institute of Education of University of London (G. Britain) and UKF Nitra.

##### • **National**

1. **GAV 2184/95:** DEVELOPMENT OF PERSONALITY BY MATHEMATICAL EDUCATION AT ELEMENTARY AND SECONDARY SCHOOLS. MANAGER OF PROJECT: V. ROSA ,MFF UK BRATISLAVA, IN 1995 -1997). ESPOSED: 1997

2. **KEGA (Cultural and educational grant agency Slovak Republic) 3/0183/02: THEORETICAL SOLUTIONS FOR CREATION OF SCHOOL BOOKS OF MATHEMATICS WITH ACCENT ON HUMANISATION OF MATHEMATICS TEACHING.** . Manager of project: O. ŠEDIVÝ, in 2002-2004.

3. **KEGA 3/115/103** CREATION OF NEW TEACHING PLANS AND PROGRAMMES IN TEACHING OF ACADEMIC SUBJECTS – MATHEMATICS.

Manager of project: O. ŠEDIVÝ, in: 2004-2006.

4. **KEGA** NEW METHODS IN TEACHING OF SOLID GEOMETRY AT ELEMENTARY AND SECONDARY SCHOOLS WITH ACCENT ON DEVELOPMENT OF SPACE IMAGINATION. Manager of project: O. ŠEDIVÝ, IN 2002-2004.

5. **KEGA 3/2323/04:** NEW METHODS OF MATHEMATICS TEACHING WITH MAKING USE OF COMPUTERS WITH ACCENT ON E-LEARNING. Manager of project: J. FULIER. in: 2004 -2006

#### **Stay abroad**

- *University Simferopol (Ukraine) - 1982 (3 weeks)*
- *University in Leningrad-St. Petersburg (Russia) - 1986 (4 weeks)*
- *University in Murcia (Spain) - 1999 (2 weeks)*
- *Technical University in Vienna (Austria) - 1999 (1 week)*
- *London, University of London (G. Britain) -2001 (1 week)*

#### **Bibliographical facts about results of scientific research activity**

##### **Qualification works**

- [1] **DAI FULIER, J.:** Convergency of Fouriers series. Bratislava, FMF UK Bratislava (1975). Thesis Typescript.
- [2] **DAI FULIER, J.:** About factorization some graphs on isomorphic factors. Bratislava, FMF UK Bratislava (1980). Rigoistic work in science field 11-02-9 *Algebra and theory of numbers*. Typescript.
- [3] **DAI FULIER, J.:** A non-linear boundary value problem for some differential systems. Bratislava, FMF UK Bratislava (1986). dissertational work espoused in science field 11-04-8 *Mathematical analysis – differential equations and application of mathematics analysis*.Typescript..

- [4] **DAI** FULIER, J.: Functions and functional thinking in preparation of Mathematics teacher. Work espoused 15. 12. 1997 by VR FNS CPU in Nitra. Typescript.

## I. Monographs

### b) internal

- [1] **AAB** FULIER, J.: Function and functional thinking in teaching of mathematics analysis. FNS CPU in Nitra, Nitra 2001, 176 pages, ISBN – 80-8050-418-0.  
[2] **AAB** FULIER, J.- ŠEDIVÝ, O.: Motivation and creation in mathematics teaching. FNS CPU in Nitra, Nitra 2001, 270 pages, ISBN 80-8050-445-8. share: 170 p.  
[3] **AAB** ŠEDIVÝ, O. - FULIER, J.: Tasks and humanization of mathematics teaching. FNS CPU in Nitra, Nitra 2004, 245 pages, ISBN 80-8050-700-7.

## II. Textbooks

### b) internal

- [1] **BCI** VRÁBEL, P. - ŠEDIVÝ, O. - FULIER, J.: Mathematical analysis I. Textbook. Bratislava, SPN 1978. 189 p. share: 4,0 AH  
[2] **BCI** VRÁBEL, P. - FULIER, J.: Mathematical analysis II. Textbook. Nitra. Teaching Faculty, 1983, 244 p. share: 7,07 AH  
[3] **BCI** VRÁBEL, P. - ŠEDIVÝ, O. - FULIER, J.: Mathematical analysis I. (II. adaptational edition). Textbook. Nitra, Teaching Faculty in Nitra 1983, 186 p. share: 4,0 AH  
[4] **BCI** VRÁBEL, P. - FULIER, J.: Mathematical analysis II. (II. adaptational edition). Textbook. Nitra. Teaching Faculty, 1991, 244 p. ISBN 80-85183-47-1. share: 7,07 AH  
[5] **BCI** CUNINKA, A. - KRIŽALKOVIČ, K. - FULIER, J.: Worldview problems in mathematics. Textbook. Nitra. Teaching Faculty, 1985, 102 p. share: 2,3 AH  
[6] **BCI** ŠEDIVÝ, O. - CUNINKA, A. - FÁZIKOVÁ, V. - FULIER, J. - KRIŽALKOVIČ, K. - PALUMBÍNÝ, D. - TEPLÍČKOVÁ, R. - VRÁBEL, P.: Collection of examples for entrance examination of mathematics. Textbook. Nitra. Teaching Faculty, 1988, 167 p. share: 3,0 AH  
[7] **BCI** VRÁBEL, P. - FULIER, J. - FÁZIKOVÁ, V. - VRÁBELOVÁ, M.: Mathematical analysis (examples of differential equations, multiple integral and theory of measure). Textbook. Nitra, Teaching Faculty 1991, 121p. ISBN 80-85138-27-7. share: 3,1 AH  
[8] **BCI** ŠEDIVÝ, O. - FULIER, J.- PALUMBÍNÝ, D. - VRÁBEL, P. - TEPLÍČKOVÁ, R. : Collection of examples of Mathematics entrance examination, academic year 1995-1996. Textbook. Nitra, Faculty of Natural science VŠPg 1995, 165p. share: 3,2 AH  
[9] **BCI** BARÁTH, O - FULIER, J - MARENČÍK, A - RAKOVSKÁ, M. - SOJKA, L. : Chapters from history of natural science for teachers I. part. Textbook. Nitra, Faculty of Natural science VŠPg 1995, 243 p. share: 5,7 AH  
[10] **BCI** ŠEDIVÝ, O. - FULIER, J.- PALUMBÍNÝ, D. - VRÁBEL, P. - TEPLÍČKOVÁ, R. : Collection of examples of Mathematics entrance examination, academic year 1995-1997. Textbook. Nitra, Faculty of Natural science VŠPg 1996, 189 p. share: 3,85 AH  
[11] **BCI** ŠEDIVÝ, O. - FULIER, J.- PALUMBÍNÝ, D. - VRÁBEL, P. - TEPLÍČKOVÁ, R. : Collection of examples of Mathematics entrance examination, academic year 1997-1998. Textbook. Nitra, Faculty of Natural science UKF, 1997, 189p. share: 3,85 AH  
[12] **BCI** FULIER, J. - VRÁBEL, P. : Differential calculus. Textbook. Nitra, Faculty of Natural science UKF 1997, 304 p. ISBN 80- 8050-111-4 share: 11,9 AH  
[13] **BCI** ŠEDIVÝ, O. - FULIER, J.- PALUMBÍNÝ, D. - VRÁBEL, P – BUKOR, J. : Collection of examples of Mathematics entrance examination, academic year 1998-1999. Textbook Nitra, FPV UKF, 1998, 204 p. share: 3,9 AH  
[14] **BCI** ŠEDIVÝ, O. - FULIER, J.- PALUMBÍNÝ, D. - VRÁBEL, P – BUKOR, J. : Collection of examples of Mathematics entrance examination, academic year 1999-2000. Textbook. Nitra, FPV UKF, 1999, 204 p. ISBN -80-8050-228-5 share: 3,9 AH  
[15] **BCI** ŠEDIVÝ, O. – BUKOR, J - FULIER, J. - PALUMBÍNÝ, D. - VRÁBEL, P. : Collection of examples of Mathematics entrance examination, academic year 2000-2001). Textbook. Nitra, FPV UKF, 2000, 210 p. ISBN 80 - 8050 -308 -7. share: 4,15 AH  
[16] **BCI** ŠEDIVÝ, O. – BUKOR, J - FULIER, J. - PALUMBÍNÝ, D. - VRÁBEL, P. : : Collection of examples of Mathematics entrance examination, academic year 2001-2002). Textbook. Nitra, FPV UKF, 2001, 210 p. share: 4,15 AH  
[17] **BCI** ŠEDIVÝ, O. – BUKOR, J - FULIER, J. - PALUMBÍNÝ, D. - VRÁBEL, P. : : Collection of examples of Mathematics entrance examination, academic year 2002-2003). Textbook. Nitra, FPV UKF, 2002, 210 p. ISBN 80-8050-509-8. share: 4,15 AH

## III. Original scientific works in karentovaných magazines

## IV. Original scientific works in nekarentovaných magazines and collections

### a) foreign

- [1] **AEC** ČERETKOVÁ, S.- FULIER, J. - TÓTH, J.: On the certain subsets of the space of metrics.. In: Acta Academiae Paedagogicae Agriensis. Nova series Tom XXIV. Eger (Hungary) 1997, p. 111-115.

### b) internal

- [1] **AED** FULIER, J.: Isomorphic factorizations bipartite completed directed graphs. In: Collection of Teaching Faculty in Nitra, Mathematics 2. Nitra, Teaching Faculty 1982, p. 203-206.  
[2] **AED** FULIER, J.: Isomorphic factorization of graphs as type  $[V_1=G_1]_1^p$  and completed p-partitných graphs. In: Collection of Teaching Faculty in Nitra. Mathematics 3. Nitra, Teaching Faculty 1984, p. 83-94.  
[3] **AED** FULIER, J. - FÁZIKOVÁ, V.: Differential systems with quasiderivative. In: Collection of Teaching Faculty in Nitra, Mathematics 4. Nitra, Teaching Faculty, 1988, p. 23-39.  
[4] **AED** FULIER, J. - ĎURIŠ, V.: Isomorphic factorization of some directed graphs. In: Collection of Teaching Faculty in Nitra. Mathematics 4. Nitra, Teaching Faculty, 1988, p. 197-207.  
[5] **AED** FULIER, J.: On Nonlinear Two-Point Boundary Value Problem. In: Acta Math. Univ. Comen. LVIII-LIX. Bratislava MFF UK 1991, p. 17-35.  
[6] **AED** FULIER, J.: Existence proof for a non-linear boundary value problem. In: Collection of Teaching Faculty in Nitra. Nitra, Teaching Faculty, 1991 p. 51-60.  
[7] **AED** FULIER, J.: Singular initial value problem for system of two differential equations of 2. order. In: Collection of Teaching Faculty in Nitra, Mathematics 5. Nitra, Teaching Faculty 1991, p. 35-49.  
[8] **AED** FÁZIKOVÁ, V. - FULIER, J.: Some Properties of Solution of the Third-order Linear Differential Equation. In Collection of Teaching Faculty in Nitra, Mathematics 5. Nitra, Teaching Faculty 1991, p. 51-59.

- [9] **AED** FULIER, J. – TÓTH, J.: On certain dense sets. In: Collection of Teaching Faculty in Nitra. Acta Mathematica 2. Nitra, 1995 p. 23-28. ISBN 80-8050-013-4
- [10] **AED** FULIER, J. – TÓTH, J.: About metrics, where convergence is equivalent with point convergence. In: Acta Mathematica 3, FPV UKF, Nitra 1998, 61– 65p. ISBN 80-8050-305-2
- [11] **ADD** FULIER, J. – TÓTH, J.: Some possibilities of making use of computers in teaching of mathematics. In: Technology of education, SlovDidac Nitra, 9/2000, supplement: Slovak teacher IX/2000, p.12 – 15.
- [12] **AED** FULIER, J.: Importance of mathematics history form motivation point of view and development of creative abilities in new multimedia milieu. Collection Acta Didactica 3 "Formation of abilities of students in natural science education". Nitra, FPV UKF 2000, p. 25 - 32. ISBN 80-8050-305 - 2
- [13] **AED** FULIER, J.: Some notes about making use of computers and Internet in mathematics teaching. In: Acta Mathematica 4. Nitra, FPV UKF 2000, p. 169 - 180. ISBN 80 – 8050 - 350 - 8
- [14] **AED** FULIER, J. – TÓTH, J. : Function defined metric space of metrics. In: Acta Mathematica 4, Nitra, FPV UKF 2000, p. 105 - 110. ISBN 80 – 8050 - 350 - 8
- [15] **AED** FULIER, J. - MARKECHOVÁ, D. – DANOVIČOVÁ, B.: Mathematics teaching at schools with a few classes. In: Acta Mathematica 5, Nitra, FPV UKF 2002, p. 155 – 162. ISBN 80 -8050- 562 – 4.
- [16] **AED** FULIER, J. – MARKECHOVÁ, D. – MICHALIČKA, P.: Some aspects of creative humanistic education in mathematics. In: Acta Mathematica 5, Nitra, FPV UKF 2002, p. 61 – 74. ISBN 80 -8050- 562 – 4.
- [17] **AED** FULIER, J. – MICHALIČKA, P.: Some possibilities of making use of software WINPLOT in teaching of mathematical analysis. In: Acta Mathematica 5, Nitra, FPV UKF 2002, p. 145 – 154. ISBN 80 -8050- 562 – 4.

## **V. Scientific works published in collections from colloquiums**

### **a) foreign**

- [1] **AFD** FULIER, J.: About one non-nlinear value problem. In: Collection 9. summer school from differential equations . Poprad 1986. Brno. University of J. E. Purkyně, 1987. p. 41-45, ISBN 55-21-87
- [2] **AFD** FULIER, J.: Elements of mathematics history in mathematics teaching. Collection Medacta 91, 3. Nitra, Teaching Faculty, 1991 p. 91-94.
- [3] **AFD** FULIER, J.: Mathematical correspondence seminar. Collection Medacta 95, 4. Nitra College of teaching in Nitra, 1995 p. 332-335, ISBN 80 - 967339 - 4 -X.
- [4] **AFD** FULIER, J.: Some notes about teaching of mathematical analysis in teaching study. Collection Medacta 97, 4. Nitra, FNS CPU in Nitra, 1997, p. 468 -474. ISBN 80 -967339-4-X
- [5] **AFD** FULIER, J.: Software Mathematica<sup>®</sup> and teaching of mathematical analysis. Collection from international colloquium Medacta 99, 1. Nitra, FNS CPU in Nitra, 1999, p. 153 -156. ISBN 80 – 967746-2-X
- [6] **AFD** FULIER, J.- KOLÁRIKOVÁ, M.: Internet and elements history of mathematics in mathematics teaching. Collection from international colloquium Medacta 99, 1. Nitra, FNS CPU in Nitra, 1999, p. 161 -164. ISBN 80 – 967746-2-X
- [7] **AFD** FULIER, J. - TÓTH, J. T.: Some notes about development of creativity in mathematics teaching. Collection of international colloquium. Educational colloquium IV." For higher level of education and prestige of teacher of elementary school" . Nitra, FNS CPU in Nitra, 1999, p. 152 - 158 , ISBN 80-8050-301-X
- [8] **AFC** FULIER, J.: Internet - News Multimedia Environment as a Part of Independent Activity of Students in Mathematics. Collection of abstracts from international scientific colloquium" 8. Prague colloquium about cybernetic pedagogy – Cybernetic models in education and interpersonal communication, University Hradec Králové", Hradec Králové (Czech republic) , 2000, p. 26-27.
- [9] **AFC** FULIER, J.: Internet - News Multimedia Environment as a Part of Independent Activity of Students in Mathematics. Collection of reports from international scientific colloquium" 8. Prague colloquium about cybernetic pedagogy – Cybernetic models in education and interpersonal communication, University Hradec Králové", Hradec Králové (Czech republic), 2000, p. 201-207, ISBN 80-7041-280-1.
- [10] **AFC** FULIER, J.: Humanization of mathematics education through mathematics history in new multimedia milieu. In: Acta Universitatis Pukynianae 53, Studia mathematica II. JAN MELICHAR A KOL: Mathematics in preparation of teachers of elementary schools, University J.E. Purkyně Ústí nad Labem, Ústí nad Labem (Czech republic) 2000, p. 180 -184. ISBN 80 – 7044-300-6.
- [11] **AFD** FULIER, J. – FRANTOVÁ, P.: Independent and creative work of math students in new multimedia environment. Collection of reports from international scientific colloquium" Prastan 2000“, Bezovec 22. 5 – 26. 5. 2000, Slovak technical University, Faculty of tectonic in Bratislava, Bratislava 2000, p.205 – 209, ISBN 80-227-1486-0
- [12] **AFD** FRANTOVÁ, P. - FULIER, J. : Some ways of using Mathematica in numerical solving of differential equations. Collection of reports from international scientific colloquium" Prastan 2000“, Bezovec 22. 5 – 26. 5. 2000, Slovak technical University, Faculty of tectonic in Bratislava, Bratislava 2000, p. 199 – 204, ISBN 80-227-1486-0
- [13] **AFD** FULIER, J.: Some possibilities of making use of Internet in mathematics. In: Collection of reports from international scientific colloquium, Liptovský Trnovec 20. – 21. 4. 2001, University M. Belu in Banská Bystrica, Banská Bystrica 2001, p. 75 – 78, ISBN 80-8055-519-2
- [14] **AFC** FULIER, J.: Unusual motivation for study history of mathematics – mathematics walking on the Moon. In: Collection of international colloquium „Participation of mathematics on preparation of elementary school teacher“. Teaching Faculty of University Palacký in Olomouc, Olomouc 2002, p.41-45, ISBN 80-244-0440-0

- [15] **AFD** FULIER, J.- MASRNOVÁ, L. - MICHALIČKA, P.: Making use of software WINPLOT in preparation of mathematics teacher. In: Collection of scientific works from international colloquium MATHEMATICS IN TEACHING, RESEARCH AND PRACTICE, FEM SPU Nitra 11.6.2002, Nitra 2002, p. 39 – 44
- [16] **AFD** FULIER, J.: Some aspects of humanization of mathematics teaching in new multimedia milieu. In: Monograph of study contribution from international colloquium „Good man (PEDAGOGICAL – PSYCHOLOGICAL – CULTURAL VIEW)“. FF UKF Nitra 11. – 13.9. 2000, Nitra 2002, p. 95 – 102, ISBN 80 -8050-557-8
- [17] **AFC** FULIER, J.: Some notes about motivation and development of creative abilities. In: Collection of international colloquium „From activity to knowledge“. Teaching Faculty University in Plzeň, Plzeň 2003, 5 p.
- [18] **AFD** FULIER, J.: Importance of motivation for creative abilities. In: Collection of scientific works from international colloquium MATHEMATICS IN TEACHING, RESEARCH AND PRACTICE, FEM SPU Nitra.2003, Nitra 2003, p. 45 - 48.
- [19] **AFD** FULIER, J.: Motivation and creation in mathematics teaching in context of humanization of education In: Collection of scientific works from international colloquium SLOVAK EDUCATION IN CONTEXT OF EUROPE INTEGRATION. CPU Nitra 2003, Nitra 2003, p.380 – 385, ISBN 80-8050-599-3
- [20] **AFD** FULIER, J.- MICHALIČKA P.: Merssens prime numbers. In: Collection of international works from international colloquium of PhD. students, FNS CPU Nitra. Nitra 2004,
- [21] **AFC** FULIER, J.- MALÁ, D.: Some notes for mathematics teaching in context of humanization of education. In: Collection of international colloquium „WAYS TO KNOWLEDGE IN MATHEMATICS OF PRIMARY SCHOOL“ Teaching Faculty, University Olomouc, Olomouc 2004, 86-90. ISBN 80-244-0818-X.
- [22] **AFD** FULIER, J.: Some aspects of relationship between mathematics history and didactics of mathematics In: Collection of scientific works from international scientific colloquium, FPV ŽU 2004, Žilina 2004, p. 37 - 45, ISBN 80-8070-270-5
- [23] **AFD** FULIER, J.: Some notes about e-learning in mathematics. In: Collection of scientific works of international scientific colloquium „Inductive and deductive approach in mathematics, Teaching Faculty, University in Trnava , Smolenice 2005, 5p.

#### **internal**

- [1] **AFD** FULIER, J.: Some possibilities of making use of Internet in mathematics teaching. Collection of reports from scientific seminar „Task and position of mathematics among other scientific disciplines“. Nitra, FEM SPU Nitra, 2000, p. 53 - 55. ISBN 80-7137-781 - 3
- [2] **AFD** FRANTOVÁ, P. - FULIER, J. – PAVLOVIČOVÁ, G. : Making use of programme system Mathematica for teaching of differential calculus function of more variables. Collection from II. scientific international colloquium of PhD. students, FPV UKF Nitra, Nitra 2001, p. 26 – 30, ISBN – 80- 8050-386-9.
- [3] **AFD** FULIER, J.: Will bachelor titles be granted in study of academic subjects? In: Acta Didactica 5. Nitra, FPV UKF 2002, p. 43-52, ISBN 80 – 8050 – 524 -1
- [4] **AFD** FULIER, J. – MALÁ, D. – MICHALIČKA, P.: Mathematics history as means of humanization of teaching. In: Collection of contributions from scientific seminar Humanization in mathematics teaching, FPV UKF Nitra, Nitra 2004, p. 79 – 89, ISBN 80-8050-710-4
- [5] **AFD** FULIER, J.: History of mathematics in mathematics at school. In: Collection from statewide colloquium „About actual questions of mathematics teaching at elementary and secondary schools“: What can we do with content of mathematics education at elementary and secondary schools, MŠ SR - JSMF Žilina - FPV ŽU Žilina, Žilina 2005, 10p.

## **20 PaedDr. REGECOVÁ MICHAELA, PhD.**

### **List of publications:**

- [1] Regecová Michaela: *Fotochemická aktivita izolovaných chloroplastov u druhu Karwinskia humboldtiana Zucc.* Diplomová práca. PriF UK, Bratislava 2001, pp.92
- [2] Sováková Andrea, Regecová Michaela, Henselová Mária: *Comparison of the photochemical activity of isolated chloroplasts from Karwinskia humboldtiana (Roem. & Schult.) Zucc. and K. parvifolia Rose (Rhamnaceae) and their sensitivity to cadmium.* 9th Days of Plant Physiology ([17.9.–21.9.2001](#)) Institute of Plant Molecular Biology, České Budějovice 2001, p.35
- [3] Bereková Helena, Földesiová Lucia, Hribíková Ivana, Regecová Michaela, Trenčanský Ivan: *Slovník teórie didaktických situácií, 1. časť.* Zborník Bratislavského seminára z teórie vyučovania matematiky, No.4, Bratislava 2001, ISBN 80-223-1704-7, p.95-103
- [4] Regecová Michaela: *Použitie vektorového počtu pri riešení planimetrických úloh na strednej škole.* Písomná časť dizertačnej skúšky. UK - Fakulta matematiky, fyziky a informatiky, Bratislava 2002, pp.79
- [5] Regecová Michaela: *Použitie vektorového počtu pri riešení planimetrických a stereometrických úloh na strednej škole.* Zborník Bratislavského seminára z teórie vyučovania matematiky, No.5, Bratislava 2003, ISBN 80-223-1874-4, p.61-80
- [6] Bereková Helena, Földesiová Lucia, Regecová Michaela, Kremžárová Lilla, Slávičková Mária, Trenčanský Ivan, Vankúš Peter, Zámožiková Zuzana: *Slovník teórie didaktických situácií, 2. časť.* Zborník Bratislavského seminára z teórie vyučovania matematiky, No.5, Bratislava 2003, ISBN 80-223-1874-4, p.113-122
- [7] Regecová Michaela: *Použitie vektorového počtu pri riešení planimetrických a stereometrických úloh na strednej škole.* Rigorózna práca. UK - Fakulta matematiky, fyziky a informatiky, Bratislava 2003, pp.66



- [8] Regecová Michaela: *L'utilisation du calcul vectoriel dans la résolution des exercices de la planimétrie et de la stéréométrie dans l'enseignement secondaire*. Quaderni di ricerca in didactica No.13, G.R.I.M., Palermo 2003, <http://math.unipa.it/~grim/quaderno13.htm>, ISSN on-line 1592-4424, p.59-75
- [9] Colletta Maria, Genco Giuseppe, Kremžárová Lilla, Regecová Michaela: *Isometry in the Plane (initial teacher training for future teacher of secondary school)*. Zborník Bratislavského seminára z teórie vyučovania matematiky, No.6, Bratislava 2004, ISBN 80-223-1954-6, p.27-38
- [10] Henselová Mária, Regecová Michaela, Sováková Andrea: *Isolation of chloroplasts in the Karwinskia species and determination of their photochemical activity under in vitro conditions*. Plant Soil and Environment, Vol.50, No.4, Czech Academy of Agricultural Sciences, Praha 2004, ISSN 0370-663X, p.149-156
- [11] Regecová Michaela: *Analytická geometria a vektorový počet vo vyučovaní matematiky na strednej škole*. Dizertačná práca. Bratislava, Fakulta matematiky, fyziky a informatiky, UK 2005, pp.276
- [12] Regecová Michaela: *Analytic geometry and vector calculus at secondary school*. Changes in society: a challenge for mathematics education. CIEAEM 57, Italy 2005, p. 120-124
- [13] Regecová Michaela: *Teaching of analytic geometry and vector calculus and proposals of problems' solutions*. Acta Didactica Universitatis Comenianae, Issue 5, Comenius University, Bratislava 2005, ISBN 80-223-2137-0, p. 23-36

#### Editorial works:

- Zborník 7 Bratislavského seminára z teórie vyučovania matematiky, Bratislava: Univerzita Komenského, 2004
- Zborník 8 Bratislavského seminára z teórie vyučovania matematiky, Bratislava: Univerzita Komenského, 2004
- Acta Didactica Universitatis Comenianae-Mathematics, Issue 5, Bratislava. Comenius University, 2005
- Acta Didactica Universitatis Comenianae-Mathematics, Issue 6, Bratislava. Comenius University, 2006
- Acta Didactica Universitatis Comenianae-Mathematics, Issue 7, Bratislava. Comenius University, 2007 [in preparing]

#### Conferences' and Seminars' Presentations:

- Regecová, M., Sováková, A.: *Izolácia chloroplastov a optimalizácia podmienok pre stanovenie ich fotochemickej aktivity v Hillovej reakcii u druhov rodu Karwinskia (Rhamnaceae)*. Študentská vedecká konferencia, Prírodovedecká fakulta UK, Bratislava 25.–26.4.2001
- Regecová, M.: *Analytic geometry and vector calculus at secondary school*. Changes in society: a challenge for mathematics education. CIEAEM 57, Piazza Armerina, July 23-29, Italy 2005
- Regecová, M.: *Analytic geometry and vector calculus at secondary school. Statistical approach*. ASI, Octobre 6 – 8, Italy 2005, Terrasini
- Regecová, M.: *Teória didaktických situácií vo vyučovaní matematiky (analytická geometria a vektorový počet na strednej škole)*, Katedra matematiky, Pedagogická fakulta, Univerzita Palackého v Olomouci, Česká republika, 19.10.2005
- Regecová, M.: *Comparison of teaching in Slovakia and France (focused on Analytic Geometry and Vector Calculus)*. Third YERME Summer school, University of Jyväskylä, Finland, 7.8.2006–13.8.2006.

## 21. Elenco dei Lavori scientifici e CV completo di Salvador LLinares 2002-2006

**Apellidos:** LLINARES CISCAR

**Nombre:** SALVADOR

**DNI:** 73906426C

**Fecha de nacimiento:** 31/03/1959

**Sexo:** Varón

#### SITUACIÓN PROFESIONAL ACTUAL

ORGANISMO UNIVERSIDAD DE ALICANTE

FACULTAD, ESCUELA O INSTITUTO EDUCACION

DEPT./SCC, UNIDAD-ESTR. INNOVACIÓN Y FORMACIÓN DIDACTICA

DIRECCIÓN POSTAL: CAMPUS DE SAN VICENTE DEL RASPEIG, 03080 ALICANTE

TELÉFONO (indique prefijo, número y extensión) 965903400- Ext 2490

**FAX 965909700**

CORREO ELECTRÓNICO [sllinares@ua.es](mailto:sllinares@ua.es)

ESPECIALIZACIÓN (código UNESCO)

CATEGORIA PROFESIONAL: catedrático de universidad FECHA COMIENZO 22 diciembre 1997

SITUACIÓN ADMINISTRATIVA:

**PLANTILLA X CONTRATADO INTERINO**

DEDICACIÓN

A TIEMPO PARCIAL

A TIEMPO COMPLETO X

Si son becarios (de ministerios, de universidades, de fundaciones privadas, etc) cumplimenten este apartado

BECARIO

NORMATIVA CONVOCATÒRIA

NORMATIVA DE ADJUDICACIÓN:

FECHA DE INICIO DE LA BECA

FECHA DE FINALIZACIÓN DE LA BECA

OTROS

ESPECIFIQUE:

FORMACIÓN ACADÉMICA

TITULACIÓ SUPERIOR CENTRO FECHA

Licenciado en Matemáticas Universidad de Valencia – Estudi General 1981

REALIZACIÓN ESTUDIOS 3R CICLO CENTRO NÚM. CRÉDITOS SUPERADOS FECHA

DOCTORADO CENTRO FECHA

Dotor en Filosofía y Ciencias de la Educación Universidad de Sevilla 1988

ACTIVIDADES ANTERIORES DE CARÁCTER CIENTÍFICO O PROFESIONAL

LUGAR INSTITUCIÓN FECHAS

Catedrático de Universidad	Universidad de Alicante	Desde 21 oct 2002
Catedrático de Universidad	Universidad de Sevilla	Desde 22 diciembre 1997 hasta 20 oct 2002
Catedrático de Escuela Universitaria	Universidad de Sevilla	Desde 4 ago 1993 hasta 22 diciembre 1997
Titular de Escuela Universitaria	Universidad de Sevilla	Desde 23 jul 1987 hasta 3 ago 1993
Profesor Contratado	Universidad de Sevilla	Desde 1 oct 1981 hasta 22 jul 1987

IDIOMAS EXTRANJEROS (R= regular; B= bé; C= correctament)

IDIOMA HABLA LEE ESCRIBE

CASTELLANO	CORRECTAMENTE	CORRECTAMENTE	CORRECTAMENTE
INGLÉS	REGULAR	BIEN	REGULAR
PORTUGUES	No se indica	BIEN	No se indica
VALENCIANO	BIEN	BIEN	No se indica

PARTICIPACIÓN EN PROYECTOS DE INVESTIGACIÓN FINANCIADOS EN LOS ÚLTIMOS AÑOS

Participación en proyectos I+D financiados en convocatorias públicas  
(nacionales y/o internacionales)

-----  
Título del proyecto: Entornos de aprendizaje basados en videos como herramientas en la formación universitaria. Análisis de niveles de desarrollo de competencia profesional (SEJ200405479/EDUC)

Entidad financiadora: Ministerio de Ciencia y Tecnología

Entidades participantes

Universidad de Alicante

Duración, desde: 13/12/2004 Hasta: 12/12/2007

Investigador responsable: LLINARES CISCAR, SALVADOR

Número de investigadores participantes: 11

Cuantía subvención: 26.480,00 €

-----  
Título del proyecto: La modelización en estudiantes de secundaria: relaciones entre la modelización matemática y la capacidad lectora (GV04B/536)

Entidad financiadora: Consellería de Cultura, Educación y Deporte

Entidades participantes

Universidad de Alicante

Duración, desde: 01/01/2004 Hasta: 31/12/2005

Investigador responsable: LLINARES CISCAR, SALVADOR

Número de investigadores participantes: 9

Cuantía subvención: 10.754,00 €

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Título del proyecto: Aprendizaje y enseñanza: relaciones en el caso de las matemáticas y lengua en educación secundaria obligatoria. (CTIDIB/2002/178)

Entidad financiadora: Consellería de Presidencia de la Generalitat Valenciana

Entidades participantes

Universidad de Alicante

Duración, desde: 01/01/2002 Hasta: 31/12/2003

Investigador responsable: LLINARES CISCAR, SALVADOR

Número de investigadores participantes: 8

Cuantía subvención: 22.543,00 €

-----  
AYUDAS DE LA UA A GRUPOS DE INVESTIGACION POR CUMPLIMIENTO DE OBJETIVOS  
-----

Título del proyecto: Investigación y formación didáctica (VIGROB2005055)

Entidad financiadora: Universidad de Alicante – Convocatoria 2005

Entidades participantes Universidad de Alicante

Duración, desde: 01/10/2005 Hasta: 30/09/2007

Investigador responsable: LLINARES CISCAR, SALVADOR

Número de investigadores participantes: 13

Cuantía subvención: 2.497,90 €

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Título del proyecto: Investigación y formación didáctica (VIGROB2004059)

Entidad financiadora: Universidad de Alicante – Convocatoria 2004

Entidades participantes Universidad de Alicante

Duración, desde: 01/10/2004 Hasta: 31/12/2005

Investigador responsable: LLINARES CISCAR, SALVADOR

Número de investigadores participantes: 11

Cuantía subvención: 2.171,74 €

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Título del proyecto: Investigación y formación didáctica

Entidad financiadora: Universidad de Alicante – CONVOCATORIA 2003

Entidades participantes Universidad de Alicante

Duración, desde: 01/12/2003 Hasta: 01/12/2004

Investigador responsable: LLINARES CISCAR, SALVADOR

Número de investigadores participantes: 8

Cuantía subvención: 4.793,80 €

-----

Título del proyecto: Investigación y Formación Didáctica

Entidad financiadora: Universidad de Alicante – convocatoria 2002

Entidades participantes Universidad de Alicante

Duración, desde: 26/09/2002 Hasta: 25/09/2003

Investigador responsable: LLINARES CISCAR, SALVADOR

Número de investigadores participantes: 10

Cuantía subvención: 4.824,00 €

-----  
AYUDAS DE LA UA A PROYECTOS DE REDES DE INVESTIGACION EN DOCENCIA UNIVERSITARIA  
-----

Título del proyecto: Red de Tecnología de la Información y comunicación aplicadas a la Educación Matemática. (Convocatoria 2005-2006)

Entidad financiadora: Vicerrectorado de Convergencia Europea y Calidad. Universidad de Alicante.

Entidades participantes Universidad de Alicante

Duración, desde: 01/12/2005 Hasta: 30/11/2006

Investigador responsable: LLINARES CISCAR, SALVADOR

Número de investigadores participantes: 9

Cuantía subvención: 3.000,00 €

-----  
Título del proyecto: Red Tecnología de la Información y Comunicación aplicadas a la Educación Matemática. (Convocatoria 2004-2005)  
Entidad financiadora: Vicerrectorado de Convergencia Europea y Calidad. Universidad de Alicante.  
Entidades participantes  
Universidad de Alicante  
Duración, desde: 01/10/2004 Hasta: 30/11/2005  
Investigador responsable: PENALVA MARTINEZ, MARIA DEL CARMEN  
Número de investigadores participantes: 10  
Cuantía subvención: 3.300,00 €

-----  
Título del proyecto: Red Tecnología de la Información y Comunicación aplicadas a la Educación Matemática. (Convocatoria 2003-2004)  
Entidad financiadora: Vicerrectorado de Convergencia Europea y Calidad. Universidad de Alicante.  
Entidades participantes Universidad de Alicante  
Duración, desde: 01/10/2003 Hasta: 30/10/2004  
Investigador responsable: PENALVA MARTINEZ, MARIA DEL CARMEN  
Número de investigadores participantes: 7 (Salvador Llinares profesor participante)  
Cuantía subvención: 2.400,00 €

-----  
Título del proyecto: Red Tecnología de la Información y Comunicación aplicadas a la Educación Matemática. (Convocatoria 2002-2003)  
Entidad financiadora: Vicerrectorado de Convergencia Europea y Calidad. Universidad de Alicante.  
Entidades participantes Universidad de Alicante  
Duración, desde: 01/10/2002 Hasta: 30/09/2003  
Investigador responsable: PENALVA MARTINEZ, MARIA DEL CARMEN  
Número de investigadores participantes: 7 (Salvador Llinares profesor participante en la RED)  
Cuantía subvención: 2.400,00 €

-----  
Título del proyecto: Red Tecnología de la Información y Comunicación aplicadas a la Educación Matemática. (Convocatoria 2001-2002)  
Entidad financiadora: Vicerrectorado de Convergencia Europea y Calidad. Universidad de Alicante.  
Entidades participantes  
Universidad de Alicante  
Duración, desde: 01/11/2001 Hasta: 30/09/2002  
Investigador responsable: PENALVA MARTINEZ, MARIA DEL CARMEN  
Número de investigadores participantes: 4  
Cuantía subvención: 1.500,00 €

#### AYUDAS DE LA UA DE APOYO A LA INVESTIGACIÓN

-----  
Título del proyecto: Razonamiento matemático y semiótica (estancia de investigador invitado) (INV0507)  
Entidad financiadora: Universidad de Alicante  
Entidades participantes Universidad de Alicante  
Duración, desde: 22/02/2005 Hasta: 26/02/2005  
Investigador responsable: LLINARES CISCAR, SALVADOR  
Número de investigadores participantes: 2  
Cuantía subvención: 1.503,00 €

-----  
Título del proyecto: Interaccionar con investigadores del proyecto CTIDIB/2002/178. (Análisis de datos) (estancia de investigador invitado)  
Entidad financiadora: Universidad de Alicante  
Entidades participantes Universidad de Alicante  
Duración, desde: 05/05/2003 Hasta: 10/05/2003  
Investigador responsable: LLINARES CISCAR, SALVADOR  
Número de investigadores participantes: 2  
Cuantía subvención: 902,00 €

#### PUBLICACIONES

(Referidas a los últimos años hasta un máximo de 10 publicaciones)

indique volumen, páginas inicio y final (año) i clave

CLAVE: L= Libro completo, CL= Capítulo del libro, A= Artículo, R= Reseña (Review), E= Editor

Artículos en Revistas Internacionales

1. Autores (p.o. de firma): Llinares, S. & Roig, A. I.

Titulo : Secondary students' Construction and Use of Mathematical Models in Solving Word Problems

Ref.: revista : International Journal of Science and mathematics Education Clave: A (Springer)

Volumen: - Número: - Páginas: - inicial: - Final: --- Fecha: en prensa

2. Autores (p.o. de firma): García, M. Sánchez, V., Escudero I. & Llinares, S.

Titulo : The dialectic relationship between research and practice in mathematics teacher education

Ref.: revista : Journal of Mathematics Teacher Education Clave: A (Springer)

Volumen: - Número: - Páginas: inicial: 1 Final: 20 Fecha: en prensa (2006)

3. Autores (p.o. de firma): Sánchez, V., Llinares, S.

Titulo : Four students teachers' pedagogical reasoning on functions

Ref.: revista : Journal of Mathematics Teacher Education Clave: A (Springer)

Volumen: 6 Número: 1 Páginas: inicial: 5 Final: 25 Fecha: 2003

4. Autores (p.o. de firma): Llinares, S.

Titulo : Arrivare ad essere insegnante di matematica: "casi" e "dibattiti elettronici".

Ref.: revista : La matematica e la sua didattica Clave: A (Pitagora Editrice Bologna, Italia)

Volumen: 3 Páginas: inicial: 258 Final: 277 Fecha: 2002

Artículos en Revistas nacionales

5. Autores (p.o. de firma): Sanchez, G.; García, M.; Llinares, S.

Titulo : El desarrollo del esquema de derivada

Ref.: revista : Enseñanza de las Ciencias Clave: A

Volumen: 24 Número: 1 Páginas: inicial: 85 Final: 98 Fecha: 2006

6. Autores (p.o. de firma): Llinares, S.

Titulo : La generación y uso de instrumentos para la práctica de enseñar matemáticas en educación primaria.

Ref.: revista : UNO. Revista de Didáctica de las Matemáticas Clave: A

Volumen: Número: 36 Páginas: inicial: 93 Final: 115 Fecha: 2004

7. Autores (p.o. de firma): Sánchez, V.; Llinares, S.

Titulo : Imágenes sobre las Matemáticas , su enseñanza y aprendizaje en estudiantes para profesores de Secundaria y tareas matemáticas escolares.

Ref.: revista : Revista de Educación Clave: A

Volumen: Número: 329 Páginas: inicial: 443 Final: 461 Fecha: 2002

Capítulos de libros en Editoriales Internacionales

8. Autores (p.o. de firma): Llinares, S.; Krainer, K.

Titulo : Mathematic (student) Teachers and Teacher Educators as Learners

EN : A. Gutierrez & P. Boero (eds.) Handbook of Research on the Psychology of Mathematics Education: Past, Present and Future /

Lugar de publicación / Rotterdam: Sense Publishers

Páginas: inicial 429 final 459 Fecha 2006 ISBN: 90-77874-19-4

9. Autores (p.o. de firma): Llinares, S.

Titulo : Contesto e pratica nella formazione degli insegnanti di matematica. Uno sguardo al caso della Spagna.

EN : Fandiño, M.I. (Ed.). Riflessioni sulla formazione iniziale degli insegnanti di matematica: una rassegna internazionale. /

Lugar de Publicación: Pitagora Editrice Bologna: Italia

páginas: inicial: 115 Final: 139; Fecha: 2003 ; ISBN: 88-371-1437-0

10. Autores (p.o. de firma): Llinares, S.

Titulo : Participation and reification in learning to teach. The role of knowledge and beliefs.

EN : G. Leder, Pehkonen & Gunter (Eds.) Beliefs: A Hidden Variable in Mathematics Education?.

Lugar de publicación: Kluwer Academic Publishers: Dordrecht

Páginas: inicial: 195 Final: 209; Fecha: 2002 ; ISBN: 1-4020-1057-5

(Indique hasta un máximo de 5 contribuciones producidas en los últimos años)

1. AUTORES Llinares, S.

TÍTULO Investigar la enseñanza como contexto de aprendizaje para los estudiantes para profesor de matemáticas. El papel de las nuevas tecnologías en el diseño de entornos de Aprendizaje.

TIPO DE PARTICIPACIÓN Conferencia invitada

CONGRESO Coloquio Internacional sobre Nuevos Ambientes de Aprendizaje para la formación de Profesores de Matemáticas. Universidad Pedagógica Nacional y CONACYT. Mexico, DF. Septiembre

PUBLICACIÓN

LUGAR DE REALIZACIÓN MEXICO, DF. MEXICO (CARACTER INTERNACIONAL)

AÑO(2005

2. AUTORES Llinares, S

TÍTULO Building virtual learning communities and the learning of mathematics student teachers

TIPO DE PARTICIPACIÓN Conferencia invitada Regular Lecture

CONGRESO ICME-04 International Conference of Mathematics Education - Julio

PUBLICACIÓN

LUGAR DE REALIZACIÓN Copenhague, Dinamarca. (CARACTER INTERNACIONAL)

AÑO 2004

3. AUTORES Llinares, S.

TÍTULO Diseño de entornos de aprendizaje con integración de las TICs en la formación de profesores de matemáticas

TIPO DE PARTICIPACIÓN CONFERENCIA INVITADA

CONGRESO VII Simposio de Educación Matemática

PUBLICACIÓN Memorias del VII Simposio de Educación Matemática / Sagula, J.E. y otros / EMAT CD-ROM - Argentina

ISBN: 987-20239-3-X

LUGAR DE REALIZACIÓN LUJAN, ARGENTINA (CARACTER INTERNACIONAL)

AÑO 2005

4. AUTORES Llinares, S.

TÍTULO: Construire le conoscenze necessarie per insegnare la matematica. Particelle sociali e tecnologia

TIPO DE PARTICIPACIÓN CONFERENCIA INVITADA

CONGRESO Convegno di didattica della matematica

PUBLICACIÓN/ En G. Arrigo (ed.) Atti del Convegno di didattica della matematica. Quaderni Alta Scuola Pedagogica. /

Lugar de Publicación: Dipartimento dell'educazione: Centro didattico cantonale: Locarno-Suiza

Páginas: inicial: 39 Final: 56; Fecha: 2004 ; ISBN: 88-86486-51-0

LUGAR DE REALIZACIÓN LOCARNO, SUIZA (CARACTER INTERNACIONAL)

AÑO 2004

5. TÍTULO Relación entre teorías sobre el aprendizaje del profesor de matemáticas y diseño de entornos de aprendizaje

TIPO DE PARTICIPACIÓN – Conferencia invitada

CONGRESO: V-CIBEM – Congreso Iberoamericano de Educación Matemática

PUBLICACIÓN Guimaraes, H.E. & Serazina, L. (Eds.) Conferencias / APM-Portugal

Páginas: inicial: 155 Final: 169; Fecha: 2005 ; ISBN: 972-8768-19-2

LUGAR DE REALIZACIÓN OPORTO- PORTUGAL (CARACTER INTERNACIONAL)

AÑO

2005

#### TESIS DOCTORALES DIRIGIDAS

(Referidas a los últimos años)

Tesis doctorales dirigidas

Título: EL PAPEL DEL PROFESOR EN LA ENSEÑANZA DE LA DERIVADA. ANÁLISIS DESDE UNA PERSPECTIVA COGNITIVA

Doctorando: Jose Maria Gavilán Izquierdo

Universidad: Sevilla

Facultad/Escuela: Ciencias de la Educación

Programa: Didáctica de las Matemáticas como ámbito de investigación científica

Fecha: 10/10/2005 CALIFICACION – SOBRESALIENTE CUM LAUDE

Título: ANÁLISIS DE LA COMPRENSIÓN EN LOS ALUMNOS DE BACHILLERATO Y PRIMER AÑO DE UNIVERSIDAD SOBRE LA NOCIÓN MATEMÁTICA DE DERIVADA (DESARROLLO DEL CONCEPTO)

Doctorando: Gloria Sánchez-Matamoros García

Universidad: Sevilla

Facultad/Escuela: Ciencias de la Educación  
Programa: Didáctica de las Matemáticas como ámbito de investigación científica  
Fecha: 04/06/2004 CALIFICACION – SOBRESALIENTE CUM LAUDE

Título Análisis de la formulación y resolución de problemas porcentuales de cambio en estudiantes para maestro

Doctorando: Carlos Maza  
Universidad: Sevilla  
Facultad/Escuela: Ciencias de la Educación  
Programa: Didáctica de las Matemáticas como ámbito de investigación científica  
Fecha: 2000 CALIFICACION – SOBRESALIENTE CUM LAUDE  
Título: Análisis del conocimiento profesional del profesor de matemáticas en enseñanza secundaria y el concepto de función como objeto de enseñanza-aprendizaje. Aportaciones metodológicas  
Doctorando: Mercedes García Blanco  
Universidad: Sevilla  
Facultad/Escuela: Ciencias de la Educación  
Programa: Didáctica de las Matemáticas como ámbito de investigación científica  
Fecha: 1997 CALIFICACION – SOBRESALIENTE CUM LAUDE

OTROS MÉRITOS O ACLARACIONES QUE SE DESEE HACER CONSTAR  
(Utilice únicamente el espacio de esta página)

Miembro de Comité de Programa de Congresos, simposios y Jornadas  
VIII Simposio de Educación Matemática - Edumat. Universidad Nacional de Lujan, Argentina. Mayo de 2006  
Miembro de Consejo Asesor de Revistas  
- Enseñanza de las Ciencias (España)  
- Números. Revista de Didáctica de la Matemática (España)  
- UNION. Revista Iberoamericana de Educación matemática (Federación Iberoamericana de Sociedades de profesores de matemáticas)  
- Zetetike (Brasil)  
Referent-evaluador de revistas científicas  
- Journal of Mathematics Teacher Education (Holanda)  
- RELIME. Revista Latinoamericana de Investigación en Educación matemática (México)  
- Paradima. Revista del Centro de Investigaciones Educativas (Venezuela)  
- Quadrante. Revista teórica e de Investigaçao (Portugal)  
- Educación Matemática (México)  
Impartición de SEMINARIOS INTERNACIONALES DE FORMACION  
- Taller: Diseño de entornos de aprendizaje y relación con las teorías sobre el aprendizaje del profesor de matemáticas.  
Característica. Impartido a alumnos de la Maestría (línea Educación Matemática) y doctorado en Educación de la Universidad Pedagógica Nacional (UPN).  
Convocado por la UPN y CONACYT, México, DF. Septiembre 2005  
Participación en paneles de expertos.  
\* Panel: "A formação matemática dos professores".  
Lugar: V - Congreso Iberoamericano de Educación Matemática (CIBEM). Oporto - Portugal  
Fecha: Julio, 2005  
\* Panel: "Nuevas tendencias en Ambientes de Aprendizaje para la formación de profesores de matemáticas"  
Lugar: Coloquio internacional sobre Nuevas tendencias en Ambientes de Aprendizaje para la formación de profesores de matemáticas  
México, DF  
Fecha: Septiembre 2005

## ***22. Elenco dei Lavori scientifici e CV completo di Athanasios Gagatsis 2002-2006***

### **ATHANASIOS GAGATSI**

Professor of Mathematics Education at the Department of Education of the University of Cyprus

#### **EDUCATIONAL BACKGROUND**

Louis Pasteur de Strasbourg, France, Thèse de Doctorat en Didactique des Mathématiques, 1982 (French government scholarship)

Louis Pasteur de Strasbourg, France, DEA en Didactique des Mathématiques, 1980 (Aristotle University Scholarship)

Aristotle University of Thessaloniki, Greece, Degree in Mathematics, 1973 (Greek government scholarship) (Class: Excellent)

School Leaving Certificate (Grade: Excellent), 1968

#### **ACADEMIC POSITIONS HELD**

2002-today Professor of Mathematics Education, Department of Education, University of Cyprus, Cyprus

1998-2005 Visiting Fellow, Faculty of Education, University of Warwick, Great Britain

1999-2001 Associate Fellow, Faculty of Education, Brunel University, Great Britain

1996-2002 Associate Professor, Department of Education, University of Cyprus, Cyprus

1992-1996 Visiting Fellow, Faculty of Education, Roehampton Institute, London, Great Britain

1993 Visiting Fellow, Faculty of Education, University of Veliko Tirmovo, Bulgaria

1983-1996 Lecturer, Assistant Professor, Department of Mathematics, Aristotle University, Thessaloniki, Greece

1982-1983 Postdoctoral Researcher, Louis Pasteur de Strasbourg, France (French government scholarship)

1975-1983 Research and Teaching Assistant, Department of Mathematics, Aristotle University, Thessaloniki, Greece

#### **PROFESSIONAL TEACHING EXPERIENCE**

##### **Teaching at the University of Cyprus**

1996-2006 EDU 171 Basic Concepts in Mathematics I (Undergraduate)

EDU 272 Topics from Modern Mathematics (Undergraduate)

EDU 331 Mathematics Education (Undergraduate)

EDU 471 Special issues in Mathematics Education (Undergraduate)

EDU 170 Pre-maths concepts (Undergraduate)

EDU 332 Mathematical concepts in the Kindergarten school (Undergraduate)

EDU 671 Cognitive Analysis of Mathematics learning (Postgraduate)

EDU 675 Contemporary trends in research in Mathematics education (Postgraduate)

EDU 677 Theories of Representation and Educational Teaching (Postgraduate)

EDU 678 Affect and Mathematics Learning (Postgraduate)

EDU 684 Space, Visualization and Reasoning in Geometry (Postgraduate)

##### **Teaching at other institutions and universities**

1992-1996 Research on Mathematics Education, Faculty of Education, Roehampton Institute, London, Great Britain

1993 Research on Mathematics Education, Faculty of Education, University of Veliko Tirmovo, Bulgaria

1983-1996 Mathematics Education and History of Mathematics Teaching Department of Mathematics, Aristotle University of Thessaloniki, Greece.

Medical Statistics and Educational Statistics, Departments of Medicine and Education, Aristotle University of Thessaloniki, Greece.

Mathematics for the Pre-school age, Department of Education, Aristotle University of Thessaloniki, Greece.

Mathematics Education, Centre for in-service education of teachers (Thessaloniki, Larissa, Katerini, Kozani in Greece).

1979-1983 Mathematics Education Research Studies in France

1975-1979 Mathematics, Department of Mathematics, Aristotle University of Thessaloniki

1974-1975 Secondary School Mathematics

#### **PROFESSIONAL SOCIETIES / INTERNATIONAL ORGANIZATIONS**

Greek Mathematical Society, Greece; Cyprus Mathematical Society, Cyprus (Vice-chairman); Cyprus Pedagogical Society, Cyprus (Chairman); ARDM Association de Recherche en Didactique de Mathématiques, France; MATESES, Italy (Honorary Member)

#### **EDITORIAL BOARDS OF SCIENTIFIC JOURNALS**

- Annales de Didactique de Mathématiques (Member of the Editorial Board), France, IREM de Strasbourg
- Cahiers de Didactique de Mathématiques (Editor), Greece, Institut Français de Thessalonique
- Educational Studies in Mathematics (Member of the Editorial Board), Netherlands, Springer Publishers
- Euclides  $\gamma$  (Member of the Scientific Committee), Greece, Greek Mathematical Society



- La matematica e la sua didattica (Member of the Scientific Committee), Italy, Pitagora Editrice Bologna
- Mediterranean Journal for Research in Mathematics Education (Chief Editor), Cyprus, Cyprus Mathematical Society
- Quaderni di Ricerca in Didattica (Member of the Scientific Committee), Italy, G.R.I.M. University of Palermo
- Tecne, Episteme y Didaxis (Member of the Scientific Committee), Colombia, Facultad Ciencia y Tecnología-Universidad Pedagógica Nacional
- Scientia Paedagogica Experimentalis (Guest Editor), Belgium, University of Cent
- Acta Didactica Universitatis Comenianae (Member of the Editorial Board)
- Journal of Research of Mathematics Teaching (Reviewer)
- Educational Psychology (Reviewer)

### **RESEARCH INTERESTS**

Representations in the learning of mathematics; Pictures in problem solving; Representations in the understanding of functions; History of Mathematics Education; Epistemological, didactical and ontogenetic obstacles in the learning of mathematics.

### **RESEARCH PROGRAMS**

- The development of a digital portfolio for teachers: Tool for their Self Performance and their evaluation (APSIFAE), Intercollege (Cyprus), Funding: Cyprus Research Promotion Foundation, (Cyprus) (2001-2003)
- Investigation of the role of representations in the first three grades of primary school, University of Cyprus (Cyprus), Funding: Cyprus Research Promotion Foundation (Cyprus) (2002-2004).
- Reform of mathematics curriculum and evaluation of mathematics textbooks, University of Cyprus, Ministry of Education and Culture (Cyprus), Funding: UNESCO (2003-2004)
- Identification, motivation and support of mathematical talents in European schools (MATEU), Intercollege (Cyprus), Funding: European Commission (Comenius 2.1) (2004 -2006)
- History of Mathematics Education in Cyprus 1878-1960, University of Cyprus (Cyprus), Centre of Scientific Research of the Ministry of Education and Culture (2005-08)
- The development of students' problem solving ability and their ability to self-regulate their cognitive performance (Program of Distinguished Scientists – with Erik De Corte), University of Cyprus (Cyprus), Funding: Research Promotion Foundation (2006- 2008)
- The functioning of representations in mathematics education with respect to the shift from elementary to secondary education, Medium Size Research Project, University of Cyprus, (Cyprus), Funding: University of Cyprus (2007-2009).

### **EDUCATIONAL PROGRAMS**

- Programme Coordinator ERASMUS ICP-91-G-0027/11 GREECE
- Programme Coordinator ERASMUS ICP-92-G-2011/11 GREECE
- Programme Coordinator ERASMUS ICP-93-G-2011/11 GREECE
- Programme Coordinator ERASMUS ICP-94-G-2011/11 GREECE
- Programme Coordinator ERASMUS ICP-95-G-2011/11 GREECE
- Programme Coordinator ERASMUS ICP-96-G-2011/11 GREECE
- Programme Coordinator ERASMUS ICP-97-G-2011/11 GREECE
- Programme Coordinator ERASMUS IP-98 CYPRUS
- Programme Coordinator ERASMUS IP - 99 CYPRUS
- Programme Coordinator ERASMUS IP - 00 CYPRUS

### **CONFERENCES**

- Participation as an invited speaker in numerous international and Greek conferences on Mathematics Education.
- Organization of the Mediterranean Conference on Mathematics Education in Cyprus, Athens and Italy
- Organization of the Working Group 7: “Language and communication in the mathematics classroom” in the International Congress on Mathematical Education (ICME 7, 1992)
- Organization of the Topic Study Group 2: “New Developments and Trends in Secondary Mathematics Education” in the International Congress on Mathematical Education (ICME 10, 2004)
- Organization of the symposium “Routine versus adaptive use of representations and models in mathematical problem solving” in the International Conference for Research on Learning and Instruction (EARLI 2005)
- Organization of the symposium “The role of representations and modelling in the learning of mathematics and problem solving” in the MASSEE International Congress on Mathematics (MICOM 2006)
- Chair of the Scientific Committee of Conferences of the Mathematical Society and of the Pedagogical Society in Cyprus.

### **CONSULTANCIES**

- Committee of the Ministry of Education of Greece for the establishment of the new curricula of Mathematics in Greece
- Committee of Reform of the Ministry of Education and Culture, Cyprus, Proposal for educational reform in Cyprus. Ministry of Education and Culture.
- Committee for the establishment of national standards in mathematics education, Cyprus, Vice-chairman of the Group of Secondary Mathematics Education for establishing the national standards in mathematics. Pedagogical Institute and University of Cyprus.

## PUBLICATIONS

### PART A

#### PUBLICATIONS IN INTERNATIONAL JOURNALS, PROCEEDINGS AND BOOKS

In total, 182 publications in international books, scientific journals and conference proceedings in five languages: English, Bulgarian, French, Italian, German and

#### A. Books

##### Authorship

1. **Gagatsis, A. (2003). *Comprensione e apprendimento in Matematica - Un approccio multidimensionale. Bologna: Pitagora Editrice Bologna.***
2. **Gagatsis, A. (1999). *Come misurare la leggibilità dei testi matematici. Bologna: Pitagora Editrice - Gruppo Editoriale Iberoamerica.***
3. Duval, R., Gagatsis, A., & Pluvineau, F. (1984). *Evaluation multimimensionnelle de l'activité de lecture.* Strasbourg: IREM - Université Louis Pasteur.
4. **Gagatsis, A. (1982). *Discrimination des scores au test de closure et évaluation de la compréhension des textes mathématiques. (Thèse de Doctorat). Strasbourg: IREM - Université Louis Pasteur.***
5. **Gagatsis, A. (1980). *Le test de closure et mesure de la compréhension de textes mathématiques. Strasbourg: IREM - Université Louis Pasteur.***

##### Editing

6. Gagatsis, A., Spagnolo, F., Makrides, Gr., & Farmaki, V. (Eds.) (2005). *Proceedings of the 4<sup>th</sup> Mediterranean Conference on Mathematics Education.* Palermo, Italy: University of Palermo, Cyprus Mathematical Society, MATHEU Project.
7. De Bock, D., Isoda, M., Garcia Cruz, J. A., Gagatsis, A., & Simmt, E. (Eds.) (2004). *Proceedings of 10th International Congress on Mathematical Education-Topic Study Group 2: New Developments and Trends in Secondary Mathematics Education.* Copenhagen: ICME-10.
8. Makrides, Gr., Gagatsis, A., & Nicolaou, K. (Eds.) (2004). *Proceedings of the CASTME International and CASTME Europe Conference: Linking Science, Mathematics and Technology Education and their social relevance.* Nicosia: Cyprus Mathematical Society.
9. Gagatsis, A., & Papastavrides, S. (Eds.) (2003). *Proceedings of the Third Mediterranean Conference on Mathematics Education.* Athens: Greek Mathematical Society.
10. Gagatsis, A. (Guest Editor) (2002). *Scientia Paedagogica Experimentalis: The role of representations in the learning of Mathematics*, 39(1).
11. Gagatsis, A. (Ed.) (2001). *Learning in Mathematics and Science and Educational Technology.* Nicosia: Intercollege Press.
12. Gagatsis, A., Constantinou, C., & Kyriakides, L. (Eds.) (2000). *Learning and Assessment in Mathematics and Science.* Nicosia: ERASMUS IP1.
13. Gagatsis, A., & Makrides, G. (Eds.) (2000). *Proceedings of the Second Mediterranean Conference on Mathematics Education.* Nicosia: Cyprus Mathematical Society.
14. Gagatsis, A. (Ed.) (1999). *A multidimensional approach to learning in Mathematics and Sciences.* Nicosia: Intercollege Press.
15. Gagatsis, A. (Guest Editor) (1998). *Scientia Paedagogica Experimentalis: Mathematics Education*, 35(1).
16. D'Amore, B., & Gagatsis, A. (Eds.) (1997). *Didactics of Mathematics - Technology in Education.* Thessaloniki: Art of text.
17. Gagatsis, A., & Rogers, L. (Eds.) (1996). *Didactics and History of Mathematics.* Thessaloniki: Art of text.
18. Gagatsis, A., & Maier, H. (Eds.) (1996). *Texte zur Didaktik der Mathematik.* Regensburg: ERASMUS.
19. Gagatsis, A. (Ed.) (1995). *Didactics and History of Mathematics.* Thessaloniki: Art of text.
20. Gagatsis, A. (Ed.) (1994). *Histoire et enseignement des Mathématiques.* Thessaloniki: Institut Français de Thessalonique.
21. Gagatsis, A. (Ed.) (1994). *Didactics of Mathematics.* Thessaloniki: Art of text.
22. Gagatsis, A. (Ed.) (1993). *Didactics of Mathematics.* Thessaloniki: Art of text.
23. **Gagatsis, A. (Ed.) (1992). *Topics on Didactics of Mathematics.* Thessaloniki: Art of text.**

#### B. Papers in journal publications

24. **Modestou, M., & Gagatsis, A. (2007, in press). *Le difficoltà degli studenti nel ragionamento proporzionale costituiscono un ostacolo didattico, di sviluppo o epistemologico? La matematica e la sua didattica*, 21(2).**

25. Modestou, M., & Gagatsis, A. (2007, in press). *Students' improper proportional reasoning: A result of the epistemological obstacle of "linearity"*. *Educational Psychology*.
26. Elia, I., Panaoura, A., Eracleous, A., & Gagatsis, A. (2006, in press). *Relations between secondary pupils' conceptions about functions and problem solving in different representations*. *International Journal of Science and Mathematics Education*.
27. Panaoura, A., Elia, I., Gagatsis, A., & Giatilis, G.P. (2006). *Geometric and algebraic approaches in the concept of complex numbers*. *International Journal of Mathematical Education in Science and Technology*, 37(6), 681-706.
28. Gagatsis, A., Sriraman, B., Elia, I., & Modestou, M. (2006). *Exploring young children's geometrical strategies*. *Nordic Studies in Mathematics Education*, 11(2), 23-50.
29. Gagatsis, A., Elia, I., & Mousoulides, N. (2006). *Are registers of representations and problem solving processes on functions compartmentalized in students' thinking?* *Revista Latinoamericana de Educacion Matematica*, Special Volume, 105-132.
30. Panaoura, G., & Gagatsis, A. (2006). *Confronto di risultati nel problem solving geometrico nel caso di studenti di scuola primaria e di scuola secondaria*. *La matematica e la sua didattica*, 20(3), 425-441.
31. Xistouri, X., Pitta-Pantazi, D., & Gagatsis, A. (2006). *A dyslexic child's mental representations and strategies in elementary arithmetic*. *Curriculum and teaching*, 21(1), 71-94.
32. Gagatsis, A., & Elia, I. (2005). *Il concetto di funzione e le sue rappresentazioni nell'educazione secondaria*. *Bollettino dei Docenti di Matematica*, 50, 41-54.
33. Anastasiadou, S., Gagatsis, A., & Elia, I. (2005). *The relation between the perceived math ability and the feelings about mathematics and statistics*. *Scientia Paedagogica Experimentalis*, 42, 351-364.
34. Michaelidou, E., & Gagatsis, A. (2005). *The geometrical model of number line as a representation of equivalence and addition of fractions*. *Scientia Paedagogica Experimentalis*, 42, 185-204.
35. Shiakalli, M., & Gagatsis, A. (2005). *The geometrical model of the number line in the teaching of whole number addition and subtraction*. *Scientia Paedagogica Experimentalis*, 42, 167-184.
36. Gagatsis, A., Christou, C., & Elia, I. (2004). *The nature of multiple representations in developing mathematical relationships*. *Quaderni di Ricerca in Didattica*, 14, 150-159.
37. Gagatsis, A., Kyriakides, L., & Panaoura, A. (2004). *Assessing the cross-cultural applicability of number lines in conducting arithmetic operations using structural equation modeling: A comparative study between Cypriot, Italian and Greek primary pupils*. *World Studies in Education*, 5(1), 85-101.
38. Gagatsis, A., & Shiakalli, M. (2004). *Translation ability from one representation of the concept of function to another and mathematical problem solving*. *Educational Psychology, An International Journal of Experimental Educational Psychology*, 24(5), 645-657.
39. Theodoulou, R., Gagatsis, A., & Theodoulou A. (2004). *Un'immagine vale più di mille parole...Ma che tipo di immagine risulta più efficace nelle attività di problem solving matematico degli studenti?* *La matematica e la sua didattica*, 2, 4-32.
40. Gagatsis, A., Shiakalli, M., & Panaoura, A. (2003). *La droite arithmétique comme modèle géométrique de l'addition et de la soustraction des nombres entiers*. *Annales de didactique et de sciences cognitives*, 8, 95-112.
41. Elia, I., & Gagatsis, A. (2003). *Young Children's Understanding of Geometric Shapes: The Role of Geometric Models*. *European Early Childhood Education Research Journal*, 11(2), 43-65.
42. Koutselini, M., & Gagatsis, A. (2003). *Curriculum Development for Differentiation in Mathematics*. *World Studies in Education*, 4(1), 45-65.
43. Kyriakides, L., & Gagatsis, A. (2003). *Assessing Student Problem-Solving Skills*. *Structural Equation Modeling: A Multidisciplinary Journal*, 10(4), 609-621.
44. Markou, A., & Gagatsis, A. (2003). *Rappresentazioni e apprendimento matematico: applicazioni nel campo delle frazioni* *La matematica e la sua didattica*, 2, 124-138.
45. Gagatsis, A., & Christou, C. (2002). *The structure of translations among representations in functions*. *Scientia Paedagogica Experimentalis*, 39(1), 39-58.
46. Gagatsis, A., Elia, I., & Mougí, A. (2002). *The nature of multiple representations in developing mathematical relations*. *Scientia Paedagogica Experimentalis*, 39 (1) 9-24.
47. Gagatsis, A., & Michaelidou, E. (2002). *Le relazioni tra le diverse rappresentazioni del concetto di funzione e la comprensione del concetto stesso. Una ricerca riferita a gli studenti della scuola secondaria superiore*. *La matematica e la sua didattica*, 4, 411-429.
48. Christou, C., Gagatsis, A., & Zachariadis, T. (2002). *The Difficulty Level of Representations in Mathematical Relationships*. *Scientia Paedagogica Experimentalis*, 39(1), 25-38.
49. Gagatsis, A., & Demetriadou, H. (2001). *Classical versus vector geometry in problem solving: An empirical research among Greek secondary students*. *International Journal of Mathematical Education in Sciences and Technology*, 32(1), 105-125.
50. Gagatsis, A., & Pitta-Pantazi, D. (2001). *Difficoltà di apprendimento in aritmetica: Esame di un caso*. *La matematica e la sua didattica*, 1, 57-74.
51. Pitta-Pantazi, D., & Gagatsis, A. (2001). *Exploring a high achiever's and a low achiever's strategies and images in early number arithmetic*. *Early Child Development and Care*, 166, 63-79.

52. Gagatsis, A. (2000). Processi di traduzione ed il concetto di funzione. *Quaderni di Ricerca in Didattica, G.R.I.M.*, 9, 1-24.
53. Gagatsis, A., & Christou, C. (2000). Investigating students' understanding of multiplication and division by analysing their textual Eigne productions. *Scientia Paedagogica Experimentalis*, 37(2), 219-240.
54. Gagatsis, A., & Kyriakides, L. (2000). Teachers' attitudes towards their pupils' mathematical errors. *Educational Research and Evaluation*, 6(1), 24-58.
55. Gagatsis, A., & Panaoura, G. (2000). Rappresentazioni semiotiche e apprendimento in matematica. Un esempio: la linea aritmetica. *Bolletino dei Docenti di Matematica*, 41, 25-58.
56. Christou, C., Gagatsis, A., & Panaoura, R. (2000). Analisi di una ricerca sulla moltiplicazione e divisione per mezzo del metodo implicativo di Regis Gras. *La matematica e la sua didattica*, 3, 292 – 303.
57. Kyriakides, L., Campbell, J., & Gagatsis, A. (2000). The significance of the classroom effect in primary schools: An application of Creemer's comprehensive model of educational effectiveness. *School effectiveness and School Improvement*, 11(4), 501-529.
58. Gagatsis, A. (1999). Communicative interaction situations between children with symptoms of dyslexia constructing geometrical figures. *Early Child Development and Care*, 151, 29-40.
59. Gagatsis, A., Demetriou A., Afantiti, T., Michaelidou, E., Panaoura, R., Siakalli, M., & Christoforides, M. (1999). L' influenza delle rappresentazioni semiotiche. nella risoluzione de problemi additivi. *La matematica e la sua didattica*, 3, 382-403.
60. Gagatsis, A., Patronis, T., & Spanos, D. (1999). Readability formulae and semantic width of terms and expressions. *Scientia Paedagogica Experimentalis*, 36(2), 207-223.
61. Gagatsis, A., Ganchev, I., & Lalchev, Z. (1999). The influence of Greek mathematics teaching on mathematical culture of Bulgarians during 18th-19th century, *Pedagogika*, 5, 103-110. (in Bulgarian).
62. Gagatsis, A. (1998). Solving methods in problems of proportions by Greek students in secondary education, ages 13-16. *Scientia Paedagogica Experimentalis*, 35(1), 241-262.
63. Gagatsis, A. (1997). Problemi di Intrapretazione Conessi Con il Concetto di Funzione, *La matematica e la sua didattica*, 4, 400-425.
64. Gagatsis A., Anastasiadou S., & Bora-Senta E. (1997). Errori commessi da studenti greci di Matematica in questioni di probabilità. *Bolletino dei Docenti di Matematica*, 35, 87-102.
65. Gagatsis, A., & Christou, C. (1997). Errors in Mathematics: a multidimensional approach. *Scientia Paedagogica Experimentalis*, 34, 89-116.
66. Dimarakis, I., & Gagatsis, A. (1997). Alcune difficoltà nella comprensione del concetto di limite. *La matematica e la sua didattica*, 2, 132-149.
67. Gagatsis, A., St. Lambis, S., & Ntziachristos, E. (1996). Metodi risolutivi per i problemi di proporzionalità impiegati dagli studenti greci nella scuola secondaria, *La matematica e la sua didattica*, 3, 270 - 281.
68. Gagatsis, A. (1995). Modi di valutazione della leggibilità dei testi matematici. *La matematica e la sua didattica* 2, 136 - 146.
69. Demetriadou, H., & Gagatsis, A. (1995). Problemi di insegnamento del concetto di vettore in Grecia. *La matematica e la sua didattica*, 16-32.
70. Gagatsis, A., & Thomaidis, I. (1995). Eine Studie zur historischen Entwicklung und didaktischen Transposition des Begriffs "absoluter Betrag". *Journal für Mathematik-Didaktik*, 16, 3 - 46.
71. Gagatsis, A. (1994). Mathematics Textbooks: Tendencies and problems. *Matematika et Informatika*, 2, 9-15 (in Bulgarian).
72. Gagatsis, A. (1994). The theory of additive structures of Gérard Vergnaud. *L'Education Primaire* 5, 52-61 (in Bulgarian).
73. Gagatsis, A. (1994). Histoire dell'enseignement de la géométrie en Grèce: L'influence des géomètres français de 1830 à 1884. *Repères IREM*, 17, 47-69.
74. Patronis, T., Spanos, D., & Gagatsis, A. (1994). A notion of semantic distance between terms and expressions and its application in the case of mathematical terms used in the classroom. *International Journal of Mathematical Education in Sciences and Technology* 25(1), 31-43.
75. Gagatsis, A. (1993). Su alcuni problemi dell'insegnamento della geometria in Grecia: un esempio: la simmetria ortogonale. *La matematica e la sua didattica* 3, 244-260 (in Italian).
76. Gagatsis, A. (1992). The age of the captain and the errors in Mathematics: on some concepts and methods of Didactics of Mathematics. *Matematika* 4, 7-9 (in Bulgarian).
77. Gagatsis, A., & Kaldrimidou, M. (1991). Résumé des Actes du Symposium en Didactique des Mathématiques. *Cahiers de Didactique des Mathématiques* 9, Thessaloniki, 11-33 and 101-124 (in Greek and French).
78. Gagatsis, A. (1990). Résumé des Actes de la Première Rencontre Européenne en Didactique des Mathématiques. *Cahiers de Didactique des Mathématiques* 5, Thessaloniki, 1-47 (in Greek and French).
79. Gagatsis, A., & Patronis, T. (1990). Utilisation des modèles géométriques dans l'enseignement des Mathématiques. *Cahiers de Didactique des Mathématiques* 6, Thessaloniki, 55-71 and 131-149 (in Greek and French).
80. Gagatsis, A., & Patronis, T. (1990). Using geometrical models in a process of reflective thinking in learning and teaching mathematics. *Educational Studies in Mathematics* 21(1), 29-54.

81. Gagatsis, A., & Patronis, T. (1990). Understanding of mathematical texts: Cloze test - Readability formulae. *Scientia Paedagogica Experimentalis* XXVII, 2, 251-265.
82. Gagatsis, A. (1988). Teaching of Mathematics with “open problems. *Cahiers de Didactique des Mathématiques* 1, Thessaloniki, 26-28 and 64-67 (in Greek and French).
83. Duval, R., Gagatsis, A., & Pluinage, F. (1987). Evaluation multimensionnelle de l’activité de lecture. *Scientia Paedagogica Experimentalis*, vol. XXIV, 1.
84. Gagatsis, A. (1985). Questions soulevées par le test de closure. *Revue Française de Pédagogie* 70, 41-50.
85. Gagatsis, A. (1984). Préalables à une mesure de la compréhension. *Recherches en Didactique des Mathématiques* 5(1), 43-80.
86. Gagatsis, A., & Chaney, E. (1983). Le test de closure testé en classe. *L’Ouvert* 32, 21-33.
87. Gagatsis, A. (1983). Ont-ils compris? *L’Ouvert* 30, 17-25.

*C. Papers in conference proceedings*

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89. Elia, I., & Gagatsis, A (2006). The effects of different modes of representation on problem solving: Two experimental programs. In J. Novotná, H. Moraová, M. Krátká & N. Stehliková (Eds.), Proceedings of the 30<sup>th</sup> Conference of the International Group for the Psychology of Mathematics Education: Vol. 3 (pp. 25-32). Prague: Charles University.
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## PART B

### PUBLICATIONS IN GREEK JOURNALS, PROCEEDINGS AND BOOKS

In total, 208 publications in books, scientific journals and conference proceedings in Greek.

#### A. Books

##### Authorship

1. **Elia, I., & Gagatsis, A. (2004). Pictures in problem solving: Facilitator or obstacle? Nicosia: University of Cyprus, Cyprus Research Promotion Foundation (in Greek).**
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4. **Gagatsis, A. (1997). Didactics of Mathematics and Dyslexia. Nicosia: Ofeltis (in Greek).**
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6. **Gagatsis, A. (1993). Elements on History of Mathematics Education. Thessaloniki: Aristotle University (in Greek).**
7. **Gagatsis, A. (1991). Topics on Didactics of Mathematics. Thessaloniki: Kyriakides publications (in Greek).**
8. **Gagatsis, A. (1985a). Mathematics for the Pre-school age. Thessaloniki: Aristotle University (in Greek).**
9. **Gagatsis, A. (1985b). Evaluation of Understanding of Mathematical Texts. Thessaloniki: Aristotle University (in Greek).**

##### Editing

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#### **B. Papers in journal publications**

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23. Gagatsis, A., & Lemonides, C. (1994). Oral arithmetic: a basic and useful skill ignored by teaching. *Diastassi* 4, 30-40 (in Greek).
24. Gagatsis A., Papadopoulou, P., Sarika, M., Tsaoulidis, A. (1994). On three exercises in Classical Geometry of the French Secondary Curriculum. *Diastassi* 3-4, 4-18 (in Greek).
25. Gagatsis, A. (1993). The theory of additive structures of Gérard Vergnaud and their application in Greek Mathematics Textbooks. *Diastassi* 1-2, 85-117 (in Greek).
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37. Gagatsis, A. (1985). Oral formulation of Mathematical Formulae. *Educational Review* 3, 21-46 (in Greek).
38. Gagatsis, A. (1985). Readability Formulae. *Educational Review* 2, 95-121 (in Greek).

#### *C. Papers in conference proceedings*

39. Gagatsis, A., Elia, I., Katalanou, St., Modestou, M., & Ioannou, O. (2006). Text readability and the role of pictures. In A. Gagatsis, I. Elia, A. Kousiappas, M. Modestou, N. Mousoulides & M. Pittalis (Eds.), *Contemporary Research in Mathematics Education* (pp. 67-78). Nicosia: Department of Education - University of Cyprus and in E. Phtiaka, A. Gagatsis, I. Elia, A. Kousiappas, M. Modestou, N. Mousoulides & M. Pittalis (Eds.), *Proceedings of the IX Conference of the Pedagogical Society in Cyprus* (pp. 111-122) (CD-ROM). Nicosia: University of Cyprus.
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53. Aristotelous, E., Perikleous, Chr., & Gagatsis, A. (2006). *The role of representations on the understanding of sets and of their functions.* In A. Gagatsis, I. Elia, A. Kousiappas, M. Modestou, N. Mousoulides & M. Pittalis (Eds.), *Contemporary Research in Mathematics Education* (pp. 25-38). Nicosia: Department of Education - University of Cyprus and in E. Phtiaka, A. Gagatsis, I. Elia, A. Kousiappas, M. Modestou, N. Mousoulides & M. Pittalis (Eds.), *Proceedings of the IX Conference of the Pedagogical Society in Cyprus* (pp. 219-232) (CD-ROM). Nicosia: University of Cyprus.

54. Constantinou, C., Tanou, G., Elia, I., & Gagatsis, A. (2006). *Elementary school students' intuitive ideas about the concept of probability*. In A. Gagatsis, I. Elia, A. Kousiappas, M. Modestou, N. Mousoulides & M. Pittalis (Eds.), *Contemporary Research in Mathematics Education* (pp. 107-118). Nicosia: Department of Education - University of Cyprus and in E. Phtiaka, A. Gagatsis, I. Elia, A. Kousiappas, M. Modestou, N. Mousoulides & M. Pittalis (Eds.), *Proceedings of the IX Conference of the Pedagogical Society in Cyprus* (pp. 247-258) (CD-ROM). Nicosia: University of Cyprus.
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56. Fragkou, K., Kapsalis, Ch., & Gagatsis, A. (2006). *Proportional and non-proportional reasoning among students with dyslexic symptoms*. In A. Gagatsis, I. Elia, A. Kousiappas, M. Modestou, N. Mousoulides & M. Pittalis (Eds.), *Contemporary Research in Mathematics Education* (pp. 227-238). Nicosia: Department of Education - University of Cyprus and in E. Phtiaka, A. Gagatsis, I. Elia, A. Kousiappas, M. Modestou, N. Mousoulides & M. Pittalis (Eds.), *Proceedings of the IX Conference of the Pedagogical Society in Cyprus* (pp. 145-156) (CD-ROM). Nicosia: University of Cyprus.
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#### **E. Papers presented in conferences (invited speaker)**

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## Collaborazioni Internazionali: Membri aggregati

### **1. Elenco dei Lavori scientifici e CV di Luis Radford**

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#### **2. EXPÉRIENCE À LA LAURENTIENNE**

Date de nomination : Le 1 juillet 1992  
Rang au moment de la nomination : Professeur agrégé  
Date d'obtention de la permanence : Le 1 juillet 1995  
Rang actuel : Professeur Titulaire.  
Date de l'obtention : Le 1<sup>e</sup> juillet 1997

#### **Deuxième augmentation pour qualification additionnelle ou rendement exceptionnel :**

<u>Année</u>	<u>Genre</u>
1992/93	Prime au rendement
1994/95	Prime au rendement
1999/2000	Augmentation au mérite

#### **SCOLARITÉ**

##### **A) Grades conférés:**

- a.1) Ingeniero Civil, Universidad de San Carlos, Guatemala, 1977.
- a.2) Licence en Mathématiques et applications fondamentales.  
Université Louis Pasteur I., Strasbourg, France, 1981.
- a.3) Diplôme d'Études Approfondies, Didactique des Mathématiques  
Université Louis Pasteur I. Strasbourg, France, 1982.
- a.3) Docteur de troisième cycle, Discipline: Didactique des Mathématiques  
Université Louis Pasteur I., Strasbourg, France, 1985.

##### **B) Cours ne menant pas à un grade:**

- 1983-1984 Contrôle de Processus de Markoff, Études de Troisième Cycle, Université Louis Pasteur  
Strasbourg, France.
- 1984-1985 Probabilités et Théorie des Nombres, Études de Troisième Cycle, Université Louis Pasteur  
Strasbourg, France.
- 1985 Méthodes Statistiques, Université Louis Pasteur, Strasbourg, France.
- 1988 Técnicas Avanzadas de Muestreo, Universidad de San Carlos, Guatemala.

##### **C) Recherche post-doctorale:**

Année: 1991/1992, Centre Interdisciplinaire de Recherche sur l'Apprentissage et le Développement en  
Éducation, (CIRADE), Université du Québec à Montréal.

#### **4. ANTÉCÉDENTS PROFESSIONNELS**

<u>Année</u>	<u>Établissement</u>
1975-1978	Professeur Auxiliaire de l'Universidad de San Carlos de Guatemala. École d'Ingénieurs. Département de Mathématiques.
1978-1980	Professeur Adjoint de l'Université de San Carlos de Guatemala. École d'Ingénieurs. Département de Mathématiques.
1982-1983	Assistant Associé à la Faculté de Sciences Économiques, Université Louis Pasteur Strasbourg, France.
1984-1985	Assistant Associé à l'Institut de Mathématiques Avancées. Université Louis Pasteur Strasbourg, France. Professeur Titulaire. Faculté d'Humanités, Universidad de San Carlos de Guatemala. Guatemala
1992 à 1997	Professeur Agrégé. École des sciences de l'éducation Université Laurentienne, Sudbury, Ontario, Canada.
1997 à date	Professeur Titulaire. École des sciences de l'éducation, Université Laurentienne

## 5. TRAVAUX D'ÉRUDITION

### a) Livres et brochures publiés

- Radford, L. et Mesquita, A. (éds.) (1993) *Actes du Colloque Élève, École, Société*, Publications du CIRADE, Université du Québec à Montréal, 104 pages.
- Radford, L. (1993). *L'évolution des idées algébriques. Une étude historico-didactique*. École des sciences de l'éducation. Université Laurentienne, 32 pages.
- Radford, L. (1993) *Matemática*.
- Guatemala/ Hilversum (The Netherlands): Prensa del Instituto de Investigacion y Mejoramiento Educativo IIME, 327 p. (1<sup>e</sup> et 2<sup>e</sup> édition).
- Radford, L. (1993) *Análisis de datos*.
- Guatemala/ Hilversum (The Netherlands): Prensa del Instituto de Investigacion y Mejoramiento Educativo IIME, 232 p.
- Rojano, T. and Radford, L.,(eds.) (1996) *Algebraic structure and Processes*, Working Group of the International Group for the study of the Psychology of Mathematics Education (PME), 20th annual meeting, University of Valencia, Spain, 42 p.
- Radford, L. et Demers, S. (2004). Communication et apprentissage. Repères conceptuels et pratiques pour la salle de classe de mathématiques. Ottawa : Centre franco-ontarien des ressources pédagogiques.

### b) Chapitres de livres de niveau universitaire

- Radford, L. (1996) The roles of Geometry and Arithmetic in the development of Elementary Algebra: Historical Remarks from a Didactic perspective, in: *Approaches to Algebra: perspectives for research and teaching*, N. Bednarz, C. Kieran and L. Lee (eds.), Dordrecht /Boston/ London: Kluwer, 39-53.
- Radford, L. (1996) Some Reflections on Teaching Algebra Through Generalization, in: *Approaches to Algebra: perspectives for research and teaching*, N. Bednarz, C. Kieran and L. Lee (eds.), Dordrecht /Boston/ London: Kluwer, 107-111.
- Radford, L. (1996) An Historical Incursion into the Hidden Side of the Early Development of Equations, In: *Arithmetics and Algebra Education*, J. Gimenez, R. Campos Lins and B. Gómez (eds.), Tarragona, Spain: Universitat Rovira I Virgili, pp. 20-131.
- Radford, L. (2000). The historical development of mathematical thinking and the contemporary student understanding of mathematics. Introduction in J. Fauvel & J. Maanen (Eds.) *History in Mathematics Education. An ICMI Study.*, Dordrecht /Boston/ London: Kluwer. 143-148.**
- Radford, L., Boero, P. & Vasco, C. (2000). Epistemological assumptions framing Interpretations of students understanding of mathematics. In J. Fauvel & J. van Maanen (Eds.) '*History in Mathematics Education. An ICMI Study*', Dordrecht /Boston/ London: Kluwer. 162-167.**
- Grugnetti, L., Rogers, L., Radford, L. et al. (2000). Philosophical, multicultural and interdisciplinary issues, In: In: J. Fauvel and J. Maan (eds.) *History and Mathematics in Education. An ICMI Study*, Dordrecht /Boston/ London: Kluwer.**
- Radford, L. & Guérette, G (2000). Second degree equations in the classroom: A Babylonian approach. In V. Katz (ed.). *Using history to teach mathematics. An international perspective* (pp. 69-75). Washington: The Mathematical Association of America.**
- Radford, L. (2001) The Historical Origins of Algebraic Thinking, in: R. Sutherland, T. Rojano, A. Bell and R. Lins (eds.), *Perspectives in School Algebra* (pp. 13-36). Dordrecht /Boston/ London: Kluwer.**
- Furinghetti, F. & Radford, L. (2002). Historical conceptual developments and the teaching of mathematics: from philogenesis and ontogenesis theory to classroom practice. In: L. English (Ed.), *Handbook of International research in Mathematics Education* (631-654). New Jersey: Lawrence Erlbaum.**
- Radford, L. (2002). The Object of Representations: Between Wisdom and Certainty. In F. Hitt (ed.), *Representations and Mathematics Visualization* (219-240). Mexico: Departamento de matemática educativa Cinvestav-IPN.**
- Radford, L. (2003) On Culture and Mind. A post-Vygotskian Semiotic Perspective, with an Example from Greek Mathematical Thought, in: Myrdene Anderson, Adalira Sáenz-Ludlow, Shea Zellweger, and Victor V. Cifarelli (eds.), *Educational Perspectives on Mathematics as Semiosis: From Thinking to Interpreting to Knowing* (pp. 49-79). Ottawa: Legas Publishing.**
- Radford, L. and Demers, S. (2004). La formazione iniziale per l'insegnamento nell'Ontario: qualche parametro del contesto istituzionale, in: M. I. Fandiño Pinilla (ed.) *Riflessioni sulla formazione iniziale degli insegnanti di matematica: una rassegna internazionale*, (pp. 177-194). Bologna: Pitagora Editrice.**
- Radford, L. (2005). The semiotics of the schema. Kant, Piaget, and the Calculator. In M. H. G. Hoffmann, J. Lenhard and F. Seeger (Eds.), *Activity and Sign. Grounding Mathematics Education* (pp. 137-152). New York: Springer.**
- Radford, L. (papier invité à paraître). Rescuing Perception: Diagrams in Peirce's theory of cognitive activity. In Lafayette de Moraes and Joao Queiroz (Eds.), *C.S. Peirce's Diagrammatic Logic*. Catholic University of Sao Paulo, Brazil.**

### c) Articles dans des revues avec comité de lecture



(N. B.: de 1990 a date seulement)

Radford, L. (1990). La ecuación de Pitágoras, *Ciencia y Educación*, Vol. 4, No. 3, pp 17-20.

Radford, L. (1990). Lagrange y el desarrollo conceptual de la Teoría de Galois, *Cuadernos de Investigación*, École de Formation de Professeurs de l'Enseignement Secondaire. No. 1. Université de San Carlos, pp. 1-22.

Radford, L. (1990). Hacia Una Nueva Pedagogía de la Matemática, *Humanidades*, No. 7, II época, junio 1990, pp. 23-28.

Reprint: *Magisterio y Familia*, No. 46, 29-34.

Radford, L. (1990). Sinus 2<sup>o</sup> y Los Numeros Algebraicos en el sentido de Abel, *Ciencia y Educacion*, Vol. 4, No. 1, pp. 8-11.

Radford, L. (1992) Diophante et l'algèbre pré-symbolique, *AMQ, Bulletin de l'Association des Mathématicques du Québec*. Vol. 31/32, pp. 73-80.

Reprint in: *L'Ouvert*, 1992, No. 68, pp. 1-13.

Radford, L. (1994) La enseñanza de la demostración: aspectos teóricos y prácticos, *Educación Matemática*, Vol. 6, No. 3, pp. 21-36.

Radford, L. (1995) Helping Students to Construct and Link Problem-Solving Models, *Ontario Mathematics Gazette*, Vol. 34, No. 2, pp. 15-18.

Radford, L. (1995) La transformación de una teoría matemática: el caso de los números poligonales, *Mathesis*, Vol. 11, No. 3, pp. 217-250.

Radford, L. (1995) Before the Other Unknowns Were Invented: Didactic Inquiries on the Methods and Problems of Mediaeval Italian Algebra, *For the Learning of Mathematics*, Vol. 15, No. 3, pp. 28-38.

Radford, L. (1996) La résolution de problèmes dans la classe de mathématiques, *Revue du Nouvel Ontario*, No. 18, pp. 11-34.

Radford, L., Grenier, M. (1996) Entre les idées, les choses et les symboles. Une séquence d'enseignement d'introduction à l'algèbre, *Revue des sciences de l'éducation*, Vol. 22, pp. 253-276.

Radford, L. (1996) La résolution de problèmes: comprendre puis résoudre? *Bulletin AMQ*, Vol. 36, No. 3, pp. 19-30.

Radford, L. (1996) Lizcano y el problema de la creación matemática, *Mathesis*, **12**, 399-413.

Radford, L. (1997) On Psychology, Historical Epistemology and the Teaching of Mathematics: Towards a Socio-Cultural History of Mathematics, *For the Learning of Mathematics*, Vol. 17 (1), 26-33.

Radford, L. (1997) L'invention d'une idée mathématique : la deuxième inconnue en algèbre, *Repères* (Revue des instituts de Recherche sur l'enseignement des Mathématiques de France), juillet, No. 28, 81-96.

Radford, L. Netten, J. and Duquette, G. (1997) Developing target second language skills through problem-solving activities in mathematics, *New York State Association for Bilingual Education Journal (NYSABE)*, **12**, 84-97.

Radford, L. (1998) On Signs and Representations. A Cultural Account, *Scientia Paedagogica Experimentalis*, Vol. 35 (1), 277-302

Radford, L. (1999) La razón desnaturalizada. Ensayo de epistemología antropológica, *Revista Latinoamericana de Investigación en Matemática Educativa*, No. 3, 47-68.

Herry, Y., Lacasse, R. et Radford, L. (1999) Les écoles françaises de l'Ontario et les résultats de la troisième enquête internationale sur l'enseignement des mathématiques, *Brock Education*, **9** (1) 60-71..

Radford, L.: (1999) El aprendizaje del uso de signos: una perspectiva post-vigotskiana, *Educación Matemática*, **11** (3), 25-53

**Radford, L. (2000) Sujeto, objeto, cultura y la formación del conocimiento, *Educación Matemática*, **12** (1), 51-69**

**Radford, L.: (2000) Signs and meanings in students' emergent algebraic thinking: A semiotic analysis, *Educational Studies in Mathematics*, **42** (3), 237-268.**

**Radford, L. (2002) Algebra as tekhnē. Artefacts, Symbols and Equations in the Classroom. *Mediterranean Journal for Research in Mathematics Education*, **1** (1), 31-56.**

**Radford, L. (2002). The seen, the spoken and the written. A semiotic approach to the problem of objectification of mathematical knowledge. *For the Learning of Mathematics*, **22**(2), 14-23.**

**Radford, L. (2002). Generalizing Geometric-Numeric Patterns: Metaphors, Indexes and Other Students' Semiotic Devices. *Mediterranean Journal for Research in Mathematics Education*, **1**(2), 63-72.**

**Radford, L. (2003). Gestures, speech and the sprouting of signs, *Mathematical Thinking and Learning*. **5**(1), 37-70**

**Radford, L. (2003) Narratives, expressions algébriques et calcul formel: de la constitution à la transformation du sens, *Annales de didactique et de sciences cognitives*, Vol. **8**, p. 191-208.**

**Radford, L. (2003). On the epistemological limits of language. Mathematical knowledge and social practice in the Renaissance. *Educational Studies in Mathematics*, **52**(2), 123-150.**

**Radford, L. (2004). Cose sensibili, essenze, oggetti matematici ed altre ambiguità [Sensible Things, Essences, Mathematical Objects and other ambiguities], *La Matematica e la sua didattica*, 2004, no. **1**, 4-23.**

**Radford, L. (2004). Del símbolo y de su objeto. Reflexiones en torno a la teoría de la conceptualización de Cassirer. *Revista Latinoamericana de Matemática Educativa*, **7**(2), 157-170.**

Radford, L. (2004). Review of *Vita Mathematica*. *Revista Brasileira de História da Matemática*, 4(7), 83-95.  
Radford, L. (2004). From Truth to Efficiency: Comments on Some Aspects of the Development of Mathematics Education, *Canadian Journal of Science, Mathematics and Technology Education / Revue canadienne de l'enseignement des sciences, des mathématiques et des technologies*, 4(4), 551-556.

Radford, L. (accepted). The Anthropology of meaning. *Educational Studies in Mathematics*.

**d) Articles (dans des revues/actes non soumises à évaluation):**

Radford, L. (1992) Le raisonnement algébrique dans la résolution de problèmes écrits: un modèle d'interaction de représentations. *Actes du colloque portant sur l'émergence de l'algèbre*. CIRADE. Université du Québec à Montréal, pp. 45 - 64.

Radford, L. (1993) L'algèbre comme outil de démonstration. *L'InforMATHeur*, Association Française pour l'enseignement des mathématiques en Ontario, No.4, mai 1993, pp. 6-7.

Radford, L. (1994) Les Maths. Est-ce que cela vous intéresse? *L'InforMATHeur*, Association Française pour l'enseignement des mathématiques en Ontario, No.7, avril 1994, pp. 2-3.

Radford, L. (1994) La couleur des rapports! Une activité didactique d'initiation à la pensée proportionnelle, *L'InforMATHeur*, Association Française pour l'enseignement des mathématiques en Ontario, no. 8, pp. 4-5.

Radford, L. (1998) Le plaisir de penser, *Pour parler profession*, Le magazine de l'Ordre des enseignants et des enseignantes de l'Ontario, pp. 8- 10, Septembre 1998. (Article écrit sur invitation)

Radford, L. (1998) The Pleasure of Thinking, *Professionally Speaking*, The Magazine of the Ontario College of Teachers, 12-14, September 1998 (article written by invitation).

**Radford, L., Savage, M. et Roberge, L. (2002). Évidence, interprétation et argumentation scientifique: une activité en 9e année au sujet de la chute des corps. Pre-prints series. École des sciences de l'éducation, Université Laurentienne, Ontario, Canada, No. 4/2002. <http://laurentian.ca/educ/lradford/PUBLIC.HTML>**

**e) Articles publiés dans des Actes de congrès internationaux avec comité de lecture**

Radford, L. (1990). Organisations déductives et démonstration. *Proceedings of the XIV Conference of the International Group for the Psychology of Mathematics Education*, Vol. 1, pp. 85-92, Mexico.

Radford, L. (1990). El Desarrollo del Razonamiento Lógico Como Problema Educativo, In: *Actes de la IV Réunion Centroaméricaine et des Caraïbes sur la Formation de Professeurs et Recherche en Didactique des Mathématiques*, Hitt, F et Imaz, C. (éds.), Universidad de Guerrero, Acapulco, Mexico, pp. 136-141.

Radford, L. (1992). La Aritmética Práctica del Padre Padilla y los inicios de la Matemática en Centro América en el período Colonial. *Abstracts Book of III Latin American Congress of History of Science and Technology*. Mexico, p. 162.

Radford, L. (1992) Representaciones y sistemas simbólicos en la resolución algebraica de problemas. In: *Memorias de la VI Reunión Centroamericana y del Caribe sobre Formación de Profesores e Investigación en Matemática Educativa.*, Cantoral, R., Farfán, R.-M., Imaz, C. (éds.), Universidad Autónoma del Estado de Morelos, Cuernavaca, México, Vol. I, pp. 148-153.

Radford, L. (1992) Los problemas de mezcla en el primer libro de Matemáticas Centroamericano. *Memorias de la VI Reunión Centroamericana y del Caribe sobre Formación de Profesores e Investigación en Matemática Educativa*, Cantoral, R., Farfán, R.-M., Imaz, C. (éds.), Universidad Autónoma del Estado de Morelos, Cuernavaca, México, Vol. I, pp. 217-222.

Bednarz, N.; Janvier, B.; Mary, C.; Radford, L. (1992) Aritmética y Algebra como útiles de resolución de Problemas: ¿transición o ruptura?. In: *Memorias de la VI Reunión Centroamericana y del Caribe sobre Formación de Profesores e Investigación en Matemática Educativa*, Cantoral, R., Farfán, R.-M., Imaz, C. (éds.), Universidad Autónoma del Estado de Morelos, Cuernavaca, México, Vol. I, pp. 112-117.

Bednarz, N.; Radford, L.; Janvier, B.; Lepage, A. (1992) Arithmetic and Algebraic Thinking in Problem Solving. In: *Proceedings of the XVI Conference of the International Group for the Psychology of Mathematics Education (P.M.E)*, W. Geeslin and K. Graham (eds.), University of New Hampshire, U.S.A, Vol. I, pp. 65-72.

Radford, L. (1992) Lenguaje Natural y Lenguaje Algebraico: La Traducción en la Resolución de Problemas, *Educación Matemática en las Américas, Actas de la Octava Conferencia Interamericana de Educación Matemática*, P. Scott y S. Guerra (eds.), París: Unesco, documento. 43, p. 137.

Radford, L. (1993) Reflexiones sobre la enseñanza de la demostración: del objeto matemático al objeto didáctico. *Memorias de la VII Reunión Centroamericana y del Caribe sobre Formación de Profesores e Investigación en Matemática educativa*, Universidad de Panamá, Panamá, pp. 426-432.

Radford, L. (1993) Le raisonnement algébrique: une réflexion épistémologique. *Actes du Colloque Elève, Ecole, Société*. CIRADE, Université de Québec à Montréal, pp. 33-45.

Radford, L. (1994) Moving through systems of mathematical knowledge: from algebra with a single unknown to algebra with two unknowns. In: *Proceedings of the XVIII Conference of the International Group for the Psychology of Mathematics Education (P.M.E.)*, J. P. da Ponte and J. F. Matos (eds.), University of Lisbon, Portugal, Vol. IV, pp. 73-80

Bednarz, N. , Radford, L., Janvier B. (1995) Algebra as a Problem-Solving Tool: One Unknown or Several Unknowns? In: *Proceedings of the 19th Conference of the International Group for the Psychology of Mathematics Education (P.M.E.)*, L. Meira and D. Carraher (eds.) Universidade Federal de Pernambuco, Brazil, Vol. 3, 160-167.

- Radford, L. (1995) La ecuación de segundo grado, una propuesta de enseñanza basada en el desarrollo histórico-conceptual, In: *Memorias de la IX Reunión Centroamericana y del Caribe sobre Formación de Profesores e Investigación en Matemática educativa*, R. M. Farfán (ed.), La Habana, Cuba, pp. 229-234.
- Radford, L. (1995) L'Émergence et le développement conceptuel de l'algèbre (III siècle - XIV siècle), in: *Actes de la première Université d'été européenne. Histoire et Épistémologie dans l'éducation Mathématique*, F. Lalonde, F. Jaboeuf (éds.), Institut de Recherche sur l'Enseignement des Mathématiques (IREM) de Montpellier, pp.69-83.
- Radford, L. (1995) Linking Psychology and Epistemology: Can the History of Mathematics be a Useful Tool for Teaching Mathematics? Proceedings of the 21st Annual Meeting of the *Canadian Society for the History and Philosophy of Mathematics*, J. Tattersall, ed., pp. 328-342.
- Radford, L. and Grenier, M. (1996). On the dialectical relationships between symbols and algebraic ideas, In: *Proceedings of the 20th international conference for the psychology of mathematics education* (PME), L. Puig and A. Gutiérrez (eds.), Vol. 4, pp. 179-186, Universidad de Valencia, Spain.
- Radford, L. (1996) History, Research and the Teaching of Mathematics, In: *Proceedings of the Quadrennial Meeting of the International Study Group on the Relations Between History and Pedagogy of Mathematics and Deuxième Université d'été Européenne sur l'Histoire et l'Épistémologie dans l'éducation Mathématique*, Universidade do Minho, Braga, Portugal. Vol. I, pp. 271-274.
- Radford, L. and Guérette, G. (1996) Quadratic equations: Re-inventing the formula. A teaching sequence based on the historical development of algebra, In: *Proceedings of the Quadrennial Meeting of the International Study Group on the Relations Between History and Pedagogy of Mathematics and Deuxième Université d'été Européenne sur l'Histoire et l'Épistémologie dans l'éducation Mathématique*, Universidade do Minho, Braga, Portugal. Vol. II, pp. 301-308.
- Radford, L.: 1999 The Rhetoric of Generalization, *Proceedings of the 23<sup>rd</sup> Conference of the International Group for the Psychology of Mathematics Education*, Haifa, Technion-Israel Institute of Technology, Vol. 4, 89-96.
- Radford, L. (1999). Rethinking representations, *Proceedings of the annual Conference of the International Group for the Psychology of Mathematics Education, North-American Chapter*, PME-NA, Mexico, Vol. 1, 147-150.
- Radford, L. (2000). Students' processes of symbolizing in algebra. A semiotic analysis of the production of signs in generalizing tasks, in: T. Nakahara and M. Koyama (eds.), *Proceedings of the 24<sup>th</sup> Conference of the International Group for the psychology of Mathematics Education* (PME-24), Hiroshima, Japan, 4, 81-88.
- Radford, L. (2001). Factual, Contextual and Symbolic Generalizations in Algebra, in: *Proceedings of the 25<sup>th</sup> Conference of the International Group for the Psychology of Mathematics Education*, Marja van den Huevel-Panhuizen (ed.), Freudental Institute, Utrecht University, The Netherlands, Vol. 4, pp. 81-88.
- Radford, L. (2001). Of course they can! A Reaction to Carraher et al.'s paper "Can young students operate on unknowns?". In: *Proceedings of the 25<sup>th</sup> Conference of the International Group for the Psychology of Mathematics Education*, Marja van den Huevel-Panhuizen (ed.), Freudental Institute, Utrecht University, The Netherlands, Vol. 1, pp. 145-148.
- Radford, L. (2001). Sur les modes du savoir, *Mémoires de la 3<sup>e</sup> Université d'été Européenne sur l'Histoire et l'Épistémologie dans l'éducation Mathématique*, Université Catholique de Louvain, Louvain-La-Neuve, Belgique Vol. 1, 287-296.
- Charbonneau, L. and Radford, L. (2002). Crafting an algebraic mind: intersection form history and the contemporary mathematics classroom. In: *Proceedings of the 24th annual meeting of the Canadian Mathematics Education Study Group/ Groupe canadien d'études en didactique des mathématiques CMESG/GCEDM*, Université du Québec à Montréal, May 26-30, 2000. pp. 47-60.
- Radford, L. (2002). On heroes and the collapse of narratives. A contribution to the study of symbolic thinking. In: *Proceedings of the 26<sup>th</sup> Conference of the International Group for the Psychology of Mathematics Education, PME 26*, Anne D. Cockburn and Elena Nardi (Eds.), Vol. 4, pp. 81-88. University of East Anglia, UK.
- Radford, L., Demers, S., Guzmán, J. and Cerulli, M. (2003). Calculators, graphs, gestures, and the production meaning. In N., Pateman, B. Dougherty and J. Zilliox (eds.), *Proceedings of the 27 Conference of the international group for the psychology of mathematics education* (PME27 –PMENA25), Vol. 4, pp. 55-62, University of Hawaii.
- Radford, L., Cerulli, M, Demers, S., and Guzmán, J. (2004). The sensual and the conceptual: Artefact-mediated kinesthetic actions and semiotic activity. In M. J. Høines and A. B. Fuglestad (eds.), *Proceedings of the 28 Conference of the international group for the psychology of mathematics education* (PME 28), Vol. 4, pp. 73-80. Norway: Bergen University College.
- Radford, L. (2004). Syntax and Meaning. In M. J. Høines and A. B. Fuglestad (eds.), *Proceedings of the 28 Conference of the international group for the psychology of mathematics education* (PME 28), Vol. 1, pp. 161-166. Norway: Bergen University College.
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**Radford, L. (2004). La généralisation mathématique comme processus sémiotique. In G. Arrigo (ed.), *Atti del Convegno di didattica della matematica 2004*, Alta Scuola Pedagogica. Locarno: Suisse, pp. 11-27.**

**f) Rapports de recherche et production vidéo**

Pallascio, R., Morin-Chassagne, T., Radford, L. (1993). *Le développement de la pensée mathématique et scientifique*. Document vidéo produit par le Service audiovisuel de l'Université du Québec à Montréal (durée 53 minutes).

Radford, L., Grenier, M. (1997) *L'algèbre avec les mains*, Rapport de recherche présenté au Conseil Ontarien de recherches pédagogiques, 27 pages.

Herry, Y, Lacasse R., Radford, L. (1998) La performance des élèves francophones de l'Ontario, in: *Ontario in TIMSS: Secondary Analysis and Recommendations*, Research on behalf of the Ontario Association of Deans of Education (OADE) for the Education Quality and Accountability Office (EQAO), G. Orpwood (Coordinator).

**g) Participation à des conférences universitaires ou professionnelles, à des sociétés, à des ateliers:**

**1. Conférences ou communications sur invitation**

Radford, L (1990). El desarrollo conceptual de la Teoría de Galois

Conférence présentée au *Séminaire de l'Ecole des Mathématiques*

*Universidad de San Carlos*

Guatemala

Radford, L. (1992). Techniques de résolution de problèmes commerciaux à la Renaissance.

Conférence présentée au Cycle de *Conférences d'Histoire des Mathématiques*

Département de mathématique et d'informatique

Université du Québec à Montréal

Canada

Radford, L. (1992). Interaction Mathématiques-société: les besoins du commerce dans l'Amérique coloniale.

Conférence présentée à la *Journée sur l'Utilisation de l'histoire dans l'enseignement des mathématiques*. CIRADE, Université du Québec à Montréal; 22 janvier 1992.

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Radford, L. (1997). *The origins of algebraic thinking*, Department of Mathematics and Computer Science, 1997 Seminar Series, Laurentian University, April 4<sup>th</sup>, 1997.

Radford, L. (1998). Historical and Psychological Issues on the Study of the Development of Mathematical Thinking, paper presented by invitation at the Luminy Conference of ICMI Study, Marseille, France April 20-25 1998.

Radford, L. (1999). *Algebraic ideas and sign-mediated actions*, Invited lecture. Department of Mathematics, University of North-Carolina at Charlotte, April 9<sup>th</sup>, 1999.

**Radford, L. (2000). *Savoir mathématique, processus de signification et pratiques sociales : le cas de l'algèbre à la Renaissance*, papier présenté sur invitation au colloque « L'importance du langage dans l'enseignement et l'apprentissage », ACFAS, Université de Montréal, 16-18 mai 2000.**

**Radford, L. (2001). *The relevance of Semiotics in Mathematics Education*, Invited Paper presented to the Discussion Group on Semiotics and Mathematics Education at the 25<sup>th</sup> Conference of the International Group for the Psychology of Mathematics Education, The Netherlands, University of Utrecht, July 12-17, 2001, 10 p.**

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**Radford, L. (2002). The objectification of Mathematical Knowledge. Invited lecture. Department of Mathematics, Università di Modena, Italy. October 25<sup>th</sup> 2002.**

**Radford, L. (2002). Le développement de la pensée algébrique. Résultats d'un programme longitudinal de recherche. Invited lecture. Department of Mathematics, Università di Palermo, Italy. October 29<sup>th</sup> 2002.**

**Radford, L. (2002). Outils sémiotiques d'objectivation du savoir mathématique: considérations épistémologiques et anthropologiques Invited lecture. Department of Mathematics, Università di Palermo, Italy. October 30<sup>th</sup> 2002.**

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Radford, L. (2003). *Artefact-Mediated Kinaesthetic Actions, Semiotic Activity, and Algebraic Thinking*. Lecture 3 given at the Seminar of Graduate Studies of the University of Turin, November 26, 2003.

Radford, L. (2003). *Body, Tool, and Semiotic Activity*. Lecture 4 given at the Seminar of Graduate Studies of the University of Turin, November 27, 2003.

Radford, L. (2004). *Body, Tool, and Symbol: Semiotic Reflections on Cognition*. Paper presented at the Annual Meeting of the Canadian Mathematics Education Study Group, Université Laval, Québec, May 28 to June 1, 2004.

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Radford, L. (2004). *The Cultural-Epistemological Conditions of the Emergence of Algebraic Symbolism*. Plenary Lecture presented at the 2004 History and Pedagogy of Mathematics Conference, Uppsala, Sweden.

## 2. Conférences et ateliers

Radford, L. (1990). De la Aritmética al Algebra: implicaciones en la enseñanza de la Matemática. Atelier dans le cadre des IV Journées Nationales sur l'Enseignement des Mathématiques. Université de San Carlos. Guatemala.

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Radford, L. (1992). Interactions between natural and Symbolic Languages in Algebraic word problems. *Annual Conference of the Canadian Society for the study of Education*. Learned Societies Conference. University of Prince Edward Island.

Radford, L. (1991), Diophante et l'algèbre pré-symbolique, 34 congrès annuel de l'Association des Mathématiciens du Québec, Montréal, Canada.

Radford, L. (1992) Sur le raisonnement algébrique dans l'histoire et dans la salle de classe, Colloque du CIRADE: Élève, École, Société, CIRADE, Université du Québec à Montréal, Canada.

Radford, L. (1993) Qu'est-ce que les élèves comprennent quand ils lisent un problème écrit?. *XXI Congrès of the Association Canadienne pour l'étude de l'éducation*. Congrès des Sociétés Savantes, Ottawa, Carleton University.

Radford, L. (1994) Ils comprennent pas? Pourtant j'ai tout expliqué!, *Journée du Savoir* (25 mars 1994), Université Laurentienne

Radford, L. (1995) Le développement de pensée algébrique. *Journée du Savoir* (mars 1995), Université Laurentienne.

Radford, L. (1995) Linking Psychology and Epistemology: How can History of Mathematics be a Useful Tool for the Comprehension of Students' Learning Processes? 21st Annual Meeting of the *Canadian Society for the History and Philosophy of Mathematics*, Congrès des Sociétés Savantes, Université du Québec à Montréal, juin 1995.

Radford, L. et Grenier, M. (1995) L'algèbre avec les mains? Ça marche! Atelier présenté lors du *Congrès Annuel de l'Association Mathématique du Nord-Ontario*, le 22-23 septembre 1995, St. Charles College, Sudbury.

Grenier, M. et Radford, L. (1995) Le passage de la pensée concrète à la pensée symbolique: une séquence d'enseignement de l'algèbre au secondaire, *37e congrès annuel du Ontario Educational Research Council*, Toronto décembre 1995.

Radford, L. et Guérette, G. (1996) Exploration de patrons numériques à travers de manipulatifs. Atelier présenté lors du *Congrès Annuel de l'Association Mathématique du Nord de l'Ontario*, Septembre 1996, École secondaire Macdonald Cartier.

Radford, L. (1996) Qu'est-ce que les poules ont à voir avec les mathématiques? Atelier présenté lors du *Congrès Annuel de l'Association Mathématique du Nord-Ontario*, Septembre 1996, École secondaire Macdonald Cartier.

Radford, L. (1997) Un regard sur les mathématiques babyloniennes, *Journée du Savoir*, ACFAS- Sudbury. Mars 1997.

Radford, L. (1998) L'enseignement des fractions, Souper des mathéux et des mathéuses, Conseil de l'éducation de Sudbury, février 1998, École Secondaire Macdonald Cartier

Radford, L. (1998) Membre de la table ronde sur l'éducation (« Le système d'éducation franco-ontarien est –il en crise?») tenue par l'Institut Franco-ontarien le 6 novembre de 1997 à l'École des sciences de l'éducation.

Radford, L., Savage, M. et Roberge, L. (2000). *Le concept d'expérience scientifique et l'interprétation des données chez des élèves de 9<sup>e</sup> année*. Atelier animé lors du congrès annuel de l'Association des mathématiciens du Nord de l'Ontario NOMA-AMNO, St-Charles College, Sudbury, le 13 octobre.

Radford, L. (2001). *En deçà du cognitivisme en éducation*. Communication présentée à la Journée du savoir, ACFAS-Sudbury. Université Laurentienne, le 6 avril 2001.

Radford, L. et Demers, S. (2004). Conférence plénière à l'occasion du lancement du livre *Communication et apprentissage – repères conceptuels et pratiques pour la salle de classe de mathématiques*. Ministère de

**l'Éducation de l'Ontario. La numératie en tête. Point de mire sur le milieu d'enseignement et d'apprentissage. Toronto Marriott Eaton Center, le 1 décembre 2004.**

**Radford, L. (2004). Le problème de l'écrit en mathématiques : du domaine kinesthésique à l'écriture. Atelier donné à l'occasion de la rencontre Formation des leaders pédagogiques en numératie, Conseil scolaire de district catholique de l'Est ontarien, le 3 décembre 2004, L'Orignal, Ontario.**

**3 Autres activités représentant une contribution à la discipline ou au champ d'activité en question:**

Membre de la table ronde d'experts formée par le ministère de l'Éducation de l'Ontario sur l'enseignement des mathématiques au cycle moyen (Avril-Juin 2004).

Membre du comité d'experts formé par le ministère de l'Éducation de l'Ontario sur la littératie (2003).

Co-organisateur d'un groupe de travail lors de la 24<sup>e</sup> rencontre du *Groupe canadien d'études en didactique des mathématiques CMESG/GCEDM, qui s'est tenue à l'Université du Québec à Montréal, May 26-30, 2000.*

Membre externe du jury de thèse de Doctorat en Éducation (Ph. D), Université du Québec à Montréal, le 14 octobre 1998.

Coordonnateur d'un des groupes de travail de l'ICMI study group sur l'histoire et l'apprentissage des mathématiques. Luminy, France, 1998.

Membre du comité 12 du Conseil de Recherches en sciences humaines du Canada (CRSH/SSHRC) lors des concours ordinaires de recherche de 1998 et 1999.

Co-organisateur du group de travail « Algebraic Thinking », *International Group for the Psychology of Mathematics Education, 20<sup>th</sup> Annual PME Conference, Valencia, Spain, 1996.*

Membre du comité de rédaction ou du comité éditorial de plusieurs revues internationales :

*Educational Studies in Mathematics*

*Revue des sciences de l'éducation*

*Educación Matemática*

*Revista Latinoamericana de Educación Matemática*

*Mathesis*

*Mediterranean Journal for Research in Mathematics Education*

*Quaderni di Ricerca in Didattica*

*For the Learning of Mathematics*

*Mathematical Thinking and Learning*

Membre externe du jury d'une thèse de Doctorat en Éducation (Ph. D.), Université du Québec à Montréal, 1994.

Membre du comité du Programme de la *VII Reunion centroamericana y del caribe sobre Formación de Profesores e Investigación en Matemática Educativa*, Universidad de Panamá, Panamá, Août 1993.

Membre du Comité du Programme des *Actes de la VI Reunion Centroamericana y del caribe sobre formación de profesores e investigación en Matemática Educativa*. México, 1992

Président Intérimaire de la Société Mathématique Guatémaltèque (Période: janvier 1991 -mai 1991)

Vice-président de la Société Mathématique Guatémaltèque (Période: mai 1990 - décembre 1990)

## ***2. Elenco dei Lavori scientifici e CV di Guy Brousseau***

Guy BROUSSEAU est né le 4 février 1933 à TAZA (Maroc), marié, 2 enfants

Adresse Professionnelle : DAEST, Université Victor Ségalen Bordeaux 3<sup>ter</sup>, Place de la Victoire, 33 000 BORDEAUX

Adresse personnelle : 17 Rue César Franck 33 400 TALENCE (F)

Tph et fax (33) 556 805 993, Courrier : [guy.brousseau@cribx1.u-bordeaux.fr](mailto:guy.brousseau@cribx1.u-bordeaux.fr)

### ***CARRIERE UNIVERSITAIRE:***

-Assistant de mathématiques à la Faculté des Sciences de Bordeaux depuis le 1er octobre 1969.

-Maître assistant de Mathématiques à la Faculté des Sciences de Bordeaux depuis le 1er octobre 1977.

-Maître de Conférences en Mathématiques, 1ère classe à la Faculté des Sciences de Bordeaux depuis le 1er Janvier 1985.

- Professeur de l'Université BORDEAUX 1 (mathématiques, 26e section) affecté à l'IUFM d'Aquitaine depuis le 1er Octobre 1991 (2ème Classe, 5ème échelon).

- Professeur d'Université de 1ère Classe, IUFM d'Aquitaine depuis le 1er Janvier 1992. Pr 2e Echelon depuis 01/02/96

- Professeur Emérite (1<sup>er</sup> Septembre 1998) de l'IUFM d'Aquitaine et de l'Université Bordeaux 1

### ***RESPONSABILITES EXERCEES***

Dans le passé, nombreuses responsabilités administratives ou associatives

- *locales* à l'université Bordeaux 1 : Création et Direction du COREM puis du LADIST et à l'IUFM,

- *Nationales* : Président d'Honneur de l'ARDM (association pour la recherche en didactique des mathématiques)

- Membre de la commission ministérielle de réflexion sur l'enseignement des mathématiques (Commission KAHANE) de 1998 à 2001.

- Membre du Comité scientifique de l'Assemblée des Directeurs d'IREM depuis 1998

- *Internationales* : Secrétaire de la Commission Internationale pour l'Etude et l'Amélioration de l'Enseignement des Mathématiques (CIEAEM) de (1981 à 1984)

### **ACTIVITES SCIENTIFIQUES:**

En 1965, dans le cadre d'un sujet d'étude que lui propose A. Lichnérovics, Guy Brousseau crée à Bordeaux un centre de recherche pour l'enseignement des mathématiques (CREM) et prend une part très active dans la préparation et la mise en place de l'IREM de cette ville en 1969.

Il propose des éléments théoriques et méthodologiques pour une future science de la diffusion des connaissances mathématiques (1970).

Il crée en 1972 une institution originale : le Centre d'observation et de recherches sur l'enseignement des mathématiques (COREM) qui comprend une école primaire et une école maternelle et le dirige jusqu'en 1997. Pendant 25 ans il y fait de très nombreuses observations. (Le travail de mise des archives du COREM sur DVD puis sur le web est en cours depuis 2002).

Il dirige le Laboratoire de didactique des sciences et des techniques (LADIST) créé à l'université Bordeaux 1 de 1986 à 1998. Il a dirigé 50 thèses d'Université (dont quelques unes d'état) et 90 mémoires de diplômes universitaires d'études avancées entre 1975 et 2001. Il encadre depuis 1970 les formateurs en mathématiques des anciennes écoles normales (dans le cadre de l'IREM de Bordeaux, puis ceux de l'Institut Universitaire de Formation des Maîtres (à partir de 1991) et prend activement part à la formation des professeurs notamment ceux de la scolarité obligatoire (initiale et continuée).

Il a accompli de très nombreuses missions de recherche et de formation dans de nombreux pays d'Europe, d'Amérique Latine et d'Amérique du Nord, mais aussi d'Afrique du Nord et d'Asie du sud est.

Ses travaux personnels portent sur l'enseignement des nombres, naturels et décimaux, sur l'enseignement des probabilités et des statistiques, sur celui de la géométrie et de l'algèbre élémentaires, enfin sur celui de la logique et du raisonnement.

Il introduit une approche nouvelle de l'enseignement des mathématiques en mettant en évidence le rôle fondamental des situations dans le comportement et l'apprentissage mathématique et en jetant les bases de la "théorie des situations didactiques en mathématiques". Celle-ci s'appuie sur les différences de conditions qui discriminent les actions et leurs répertoires implicites, les formulations et leurs répertoires sémiologiques et les preuves et leurs répertoires scientifiques ou culturels. Sa méthodologie est celle des modélisations systémiques dont la confrontation à la contingence combine les méthodes expérimentales et cliniques. En statistique, il contribue à la création et à l'usage en didactique, de l'analyse implicite (Gras et Lermann)

Guy Brousseau montre (1976) qu'en mathématiques aussi (contrairement à l'opinion de Bachelard) des connaissances "légitimes" peuvent créer des obstacles épistémologiques : en particulier la compréhension "naïve" des naturels fait obstacle à l'apprentissage des décimaux et donne plusieurs autres exemples à différents niveaux. Ce fait servira de base à l'étude de la "transposition didactique" développée par son premier "élève" Yves Chevallard.

Il met en évidence les paradoxes des situations didactiques et divers phénomènes qui en résultent (effets Topaze, Jourdain etc.). Il montre que le supposé "contrat didactique" est un mythe nécessaire qui fonctionne essentiellement par ses ruptures et que le constructivisme radical est formellement impossible. Ce qui conduit à l'étude des processus didactiques d'institutionnalisation. Cette notion fournit des explications et des prévisions sur les effets pervers de certaines formes d'évaluation scolaire.

La théorie fournit directement une première structuration du milieu didactique, comme système antagoniste de l'apprenant et débouche sur l'étude générale des conditions de diffusion de connaissances dans un réseau d'institutions. Ces travaux jettent les bases d'une partie de la "micro-didactique", celle qui tend à décrire les conditions générales de diffusion "d'une" connaissance mathématique particulière. En particulier il identifie les phénomènes d'obsolescence didactique et en fait la base de l'étude de l'évolution des méthodes d'enseignement. Il montre comment les conditions macrodidactiques bloquent les améliorations de l'enseignement alors même que des solutions microdidactiques éprouvées existent.

Guy Brousseau développe parallèlement l'étude des conditions d'agrégations de connaissances et de situations : agrégations en processus ou en conceptions, constituants d'un milieu didactique généralisé.

Plus tardivement il s'intéresse aux composantes didactiques inhérentes à l'activité mathématique des mathématiciens et à leur influence (en particulier celle de leurs textes) sur les mécanismes transpositifs (dé-transposition et re-mathématisation).

### **PUBLICATIONS ET TEXTES (1987-2001 et quelques textes antérieurs)**

#### **1. OUVRAGES**

BROUSSEAU Guy Les mathématiques du cours préparatoire Fascicule 1 (Dunod 1965) avec la collaboration de G. Ratier

BROUSSEAU G. et FELIX Lucienne : Première Mathématique" Mathématique et thèmes d'activité à l'école maternelle Hachette 1972

Guy Brousseau, Lucienne Félix, Y. Lamoureux et J. Marinières, Préparations et commentaires à l'usage de la maîtresse de classe maternelle accompagnés d'un Fichier - élèves" Hachette 1972

BROUSSEAU G. (1986). Théorisation des phénomènes d'enseignement des Mathématiques. Thèse d'état. Université de Bordeaux 1.

N. et G.BROUSSEAU. (1987). Rationnels et décimaux dans la scolarité obligatoire. 535 pages IREM de BORDEAUX.

G.VERGNAUD, G.BROUSSEAU, M.HULIN, (Ed) (1988) "Didactique et acquisition des connaissances scientifiques. Actes du colloque de Sèvres. (Mai 1987) pp 47-64, La pensée sauvage. Grenoble.

BROUSSEAU G. (1991) Cours élémentaire de Didactique des mathématiques. (en préparation)

Note: 100 pages de cet ouvrage ont été publiées dans les actes de l'université d'été "Didactique des Mathématiques et formation des maîtres à l'école élémentaire". (Olivet juillet 1988) IREM de BORDEAUX 1989 : Sujets de devoirs de Didactique, Introduction à la didactique (texte pour les PE1 IUFM 1993, (rédaction 1994)

BROUSSEAU G (1989) L'observation en didactique des mathématiques. (sous presse). IREM de BORDEAUX.

BROUSSEAU G (1989) L'ingénierie de la didactique des mathématiques. (en préparation IREM de BORDEAUX).

BROUSSEAU G. (1990) Statistiques non paramétriques pour la didactique des mathématiques. (Cours 163 pages) (LADIST, Bordeaux).

BROUSSEAU G. et FOUCAUD R. (1992) Situations pour l'apprentissage du nombre et de la numération. IREM de Bordeaux. (50 pages)

BROUSSEAU G. (1993) "Stratégies de l'analyse statistique". (cours pour les professeurs de mathématiques, 80 pages) (LADIST).

BROUSSEAU G. (1997) "Theory of Didactical situations in Mathematics". Recueil de textes de Didactique des mathématiques 1970-1990" traduction M. COOPER et N. BALACHEFF, Rasamund SUTHERLAND et Virginia WARFIELD. (KLUWER).

BROUSSEAU G. (1998) "La théorie des situations didactiques". Recueil de textes de Didactique des mathématiques 1970-1990" présentés par M. COOPER et N. BALACHEFF, Rasamund SUTHERLAND et Virginia WARFIELD. (La pensée sauvage, Grenoble)

BROUSSEAU (1999), Elementi per una ingegneria didattica, Pitagora Editrice, Bologna, Italia.

#### **Codirection d'Édition.**

G. VERGNAUD, G. BROUSSEAU, M. HULIN (Ed) (1988) Didactique et Acquisition des connaissances scientifiques Actes du colloque de Sèvres (Mai 1987). La Pensée sauvage Grenoble.

#### **2. CONTRIBUTIONS à des OUVRAGES COLLECTIFS.**

BROUSSEAU G. (1984) The IREM's role in helping elementary-school teachers in Robert Morris: "Studies in mathematics education, the mathematical education of primary-school teachers" Vol 3, pp 235-251.

G.BROUSSEAU, R.B. DAVIS, T.WERNER, (1986) Observing students at work, in B.Christiansen, A.G. Howson, & M. Otte, Perspective on mathematics education, pp 205-241. D.Reidel publ;

BROUSSEAU G. (1987) Représentation et didactique du sens de la division. in G.VERGNAUD, G.BROUSSEAU, M.HULIN, " Didactique et acquisition des connaissances scientifiques. Actes du colloque de Sèvres. pp 47-64, La pensée sauvage. Grenoble.

G.BROUSSEAU, M. OTTE (1989) Fragility of Knowledge, in Perspective on mathematics education II, pp. D.Reidel publ.

G.BROUSSEAU. (1989). Les obstacles épistémologiques et la didactique des mathématiques, in N. Bednarz et C. Garnier (Eds): CONSTRUCTION DES SAVOIRS. pp 41-63. CIRADE. Agence d'arc. Canada.

G.BROUSSEAU. (1989). Obstacles épistémologiques, conflits socio-cognitifs et ingénierie didactique., in N. Bednarz et C. Garnier (Eds): CONSTRUCTION DES SAVOIRS. pp 277-285. CIRADE. Agence d'arc. Canada.

G. BROUSSEAU. (1991). Les transformations des savoirs mathématiques dans les interactions sociales didactiques.

in N. Bednarz et C. Garnier (Eds): CIRADE. Agence d'arc. Canada. (40 pages) (ouvrage en préparation).

G. BROUSSEAU. (1994). "Perspectives pour la didactique des mathématiques" in M. Artigue, R. Gras, C. Laborde, P. Tavinot (Eds): VINGT ANS DE DIDACTIQUE DES MATHÉMATIQUES EN FRANCE" pp 51- 66 La pensée Sauvage Grenoble.

Extraits publiés dans "Animation et Education" n° 123, Nov/déc 1994

BROUSSEAU G. L'analyse statistique des situations didactiques. (1995) in R. GRAS (ed) Méthodes d'analyse multidimensionnelle en didactique des mathématiques pp 53-90 Actes du Colloque de Caen (IRMAR, Rennes 1)

BROUSSEAU G. VINRICH G., TEULE-CENSACQ P., Annales des épreuves de Mathématiques du Concours de recrutement externe des professeurs d'écoles 1992. Corrigés. (1993). (IREM de BORDEAUX).

BROUSSEAU G., VINRICH G., DUVAL A., Annales des épreuves de Mathématiques du Concours de recrutement externe des professeurs d'écoles 1993. Corrigés. (1994). (IREM de BORDEAUX).

BROUSSEAU G., VINRICH G., DUVAL A., Annales des épreuves de Mathématiques du Concours de recrutement externe des professeurs d'écoles 1994. Corrigés. (1995). (IREM de BORDEAUX).



BROUSSEAU G., VINRICH G., DUVAL A., Thèmes Mathématiques pour la préparation au Concours de recrutement externe des professeurs d'écoles (1995).(IREM de BORDEAUX).

BROUSSEAU G., VINRICH G., DUVAL A. et J. BRIAND, Annales des épreuves de Mathématiques du Concours de recrutement externe des professeurs d'écoles 1995. Corrigés. (1996).(IREM de BORDEAUX).

BROUSSEAU G., VINRICH G., DUVAL A. et J. BRIAND, Annales des épreuves de Mathématiques du Concours de recrutement externe des professeurs d'écoles 1995. Corrigés. (1996).(IREM de BORDEAUX)

BROUSSEAU G., VINRICH G., DUVAL A. et J. BRIAND, Annales des épreuves de Mathématiques du Concours de recrutement externe des professeurs d'écoles 1996. Corrigés. (1997).(IREM de BORDEAUX).

BROUSSEAU G., VINRICH G., DUVAL A. et J. BRIAND, Annales des épreuves de Mathématiques du Concours de recrutement externe des professeurs d'écoles 1997. Corrigés. (1998).(IREM de Paris VII).

BROUSSEAU G., VINRICH G., DUVAL A. et J. BRIAND, Annales des épreuves de Mathématiques du Concours de recrutement externe des professeurs d'écoles 1998. Corrigés. (1999).(IREM de Paris VII).

BROUSSEAU G. (1996) "Promenade avec Thalès entre la maternelle et l'Université". in Commission Inter-IREM Premier Cycle Autour de Thalès. pp. 87 -124

BROUSSEAU G. (1995) "Les mathématiques à l'école" in "Bulletin de l'Association des professeurs de Mathématiques de l'Enseignement Public" n° 400 (12 pages)

BROUSSEAU G. (1996) "Fondements et méthodes de la didactique des mathématiques" in "Didactique des mathématiques", J. BRUN ed Delachax et Niestlé Lausanne.

BROUSSEAU G. (1998) "La théorie des situations didactiques et ses applications" , Dans un ouvrage en préparation sous la direction de Jean Portugais (Université de Montréal)

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### **3. ARTICLES DANS DES REVUES À COMITÉ DE LECTURE.**

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### **5. MEMOIRES ET RAPPORTS DE RECHERCHE.**

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### **6. LOGICIELS.**

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### **7. PARTICIPATION A L'INFORMATION SCIENTIFIQUE ET TECHNIQUE ET A LA VALORISATION DE LA RECHERCHE.**

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## **3. Elenco dei Lavori scientifici e CV di Régis Gras**

**NOM** : GRAS

**PRENOM** : Régis

**DATE ET LIEU DE NAISSANCE** : 12 septembre 1933 à Saint-Front-de-Pradoux (Dordogne)

**SITUATION DE FAMILLE** : Marié, 3 enfants

**ADRESSE PERSONNELLE** : 14 avenue de la Chaise - 35170 BRUZ, Tél. : 02 99 52 73 98, Fax : 02 99 52 93 68

**SITUATION ADMINISTRATIVE** : Professeur des Universités titulaire à l'Université de Nantes (Institut de Recherche et d'Enseignement Supérieur aux Techniques de l'Electronique). Chercheur à l'Institut de Recherche Mathématique de Rennes (Université de Rennes I). Puis Professeur émérite à l'Université de Nantes depuis septembre 1998.

**ADRESSE PROFESSIONNELLE** :

**Enseignement** : Ecole Polytechnique de l'Université de Nantes (IRESTE) – rue C.Pauc, La Chantrerie, BP 60601, 44306 NANTES Cedex 3, Tél. 02-40-68-30-00

**Recherche** : Laboratoire de Didactique Institut de Recherche Mathématique de Rennes Campus de Beaulieu, 35042 RENNES Cedex Tél. 02-99-28-60-04

et Laboratoire "Extraction de Connaissances" Institut de Recherche en Informatique Université de Nantes

## **AUTRES ACTIVITES.**

- Participation aux travaux du Groupement de Recherches du C.N.R.S. : "Didactique et acquisition des connaissances scientifiques" de 1978 à 1995.
- Participation aux travaux de l'Association des Professeurs de Mathématiques de l'Enseignement Public.
- Participation aux activités de la Commission Internationale pour l'Enseignement des Mathématiques (I.C.M.I.). Présidence de la Sous-Commission Française (C.F.E.M.) de 1995 à 1998.

## **CENTRES D'INTERET.**

- Statistiques et analyses de données multi-dimensionnelles. - Didactique des Mathématiques.
- Techniques nouvelles de communication et traitement de l'information - Formation continue des adultes.

## **CARRIERE UNIVERSITAIRE.**

- Depuis le 13 Septembre 1998, nommé Professeur Emérite à l'Université de Nantes
- Du 1er octobre 1988 au 12 Septembre 1998, Professeur d'Université à l'Université de Nantes (I.R.E.S.T.E.), intégré dans le corps au 1.10.85.
- Du 1er janvier 1985 au 30 Septembre 1988 :
  - . Maître de Conférences à l'Université de Rennes I
  - . Habilitation à diriger des recherches soutenue le 23 octobre 1985.
- Du 1er Juin 1982 au 31 décembre 1984  
Maître-Assistant à l'Université de RENNES I et
  - . du 1-6-82 au 28-11-83 : Chef de Projet Multi-Media, Multi-Publics, Breizetel . . du 29-11-83 au 31-12-84 : Directeur du Centre d'Etudes, de Recherches et d'Applications des Technologies Nouvelles pour la Formation et l'Information.
- Du 1er novembre 1970 au mai 1982
  - . Maître-Assistant à l'Université de RENNES I . Inscription LAES - Juin 1976
  - . Thèse d'état de Mathématiques soutenue en octobre 1979.
- Du 1er décembre 1968 au 30 octobre 1970
  - . Maître-Assistant délégué puis stagiaire à l'Université de RENNES I . Thèse de 3ème cycle soutenue en juin 1969. - Du 1er octobre 1963 au 30 novembre 1968
  - . Assistant à l'Université de RENNES I
  - . D.E.A. de probabilités.
- Du 1er octobre 1960 au 30 septembre 1963
  - . Elève-professeur à l'I.P.E.S. de RENNES . Licence de Mathématiques (62), D.E.S. Probabilités et Statistiques et D.E.S. Calcul Automatique (63)
  - . CAPES (Rang 2ème, Juin 1963).
- Du 1er octobre 1958 au 30 septembre 1960
  - . Service militaire.
- Du 1er octobre 1957 au 30 septembre 1958
  - . Professeur d'Enseignement Général Sciences - Stagiaire à l'ENNA de Nantes.
- Du 1er octobre 1956 au 30 septembre 1957
  - . Professeur d'Enseignement Général Sciences - Auxiliaire au C.E.T. Bâtiment de NANTES.
- Du 1er octobre 1951 au 30 septembre 1956
  - . Surveillant d'internat (BREST, NANTES). Vacations d'instituteur

## **ACTIVITES.**

### **A - Activités coordinatrices et de représentation**

- 1°) De 1971 à 1983, liaison entre le département de Mathématiques et le Service Formation Continue de l'Université de RENNES I, avec élaboration des programmes et évaluation des stages.
- 2°) Membre de la Commission Permanente de l'I.R.E.M. de Rennes (jusqu'en juin 1979) et de son Conseil d'Administration (jusqu'en juin 1979). Membre de la Commission Enseignement et du Conseil Scientifique du département de Mathématiques et Informatique de l'Université de Rennes I (de 1978 à 1982).
- 3°) Présidence de la Commission de choix des sujets de Baccalauréat A et D (de 1977 à 1983) pour l'Académie de Rennes.
- 4°) Présidence de la Régionale de Rennes de l'Association des Professeurs de Mathématiques de l'Enseignement Public (A.P.M.E.P.) en novembre 1980, réélection en novembre 1981, puis novembre 1982. Participation depuis 1982 au travail de deux groupes nationaux APMEP sur l'évaluation et sur une réforme des programmes du 1er et du 2ème cycles. Création d'une revue annuelle de l'Association Régionale (Le Far d'Ouest publié en mai 1981, mai 1982 et mai 1983). Depuis 1983, membre du Comité Régional de l'A.P.M.E.P. Elu au Comité National en mai 1993 et responsable de deux groupes de travail nationaux.

5°) Fondateur du Groupe Inter-disciplinaire des organisations d'enseignants pour la formation permanente de l'Académie de Rennes (juin 1981), préfigurant la mise en place locale de la Mission Académique à la Formation des Personnels de l'Education Nationale.

6°) Membre représentant l'Université dans la commission départementale LEGRAND en 1981-1982. Participation à l'organisation de l'expérience de formation des maîtres et de celle du DEUG 1er degré de l'Université. Responsabilité générale de l'enseignement des mathématiques en DEUG 1er degré, d'avril 1982 à juin 1983, puis suppléant.

7°) Représentant français du Réseau Européen de Recherche en Education et en Formation (R.E.R.E.F.) patronné par le Ministère de la Recherche et de la Technologie et le Ministère de l'Education Nationale depuis 1986. Grand Electeur à la Commission française pour l'U.N.E.S.C.O. sur le "Progrès en Education" depuis 1985. Consultant-Expert à l'Agence de Coopération Culturelle et Technique depuis 1991.

8°) De 1986 à 1996, coordonnateur des activités du G.R. "Didactique et Acquisition des Connaissances Scientifiques" sur le thème: "Outil Informatique dans l'enseignement", devenu "Modélisation didactique et Informatique des processus d'enseignement". Rédacteur des rapports intermédiaire et final relatifs au thème. Participation à la formation, la coordination et l'animation d'un groupe de travail commun entre le P.R.C.-Intelligence Artificielle et le G.R. "Didactique".

9°) Présidence, de Janvier 1995 à Juillet 1998, de la Commission Française pour l'Enseignement des Mathématiques, sous-commission de International Commission on Mathematical Instruction, organisatrice du Congrès International sur l'Enseignement, I.C.M.E. 8 de Séville. En tant que tel, membre, en 1998, de la commission nationale World Mathematical Year 2000. 10°) Membre représentant l'A.P.M.E.P. à la Commission Ministérielle "Bac Horizon 2000" en 1997-1998, 1998-1999 et 1999-2000.

10°) Expert au Committee on Mathematics Education of the European Mathematics Society depuis 1997.

11°) Membre du Conseil scientifique de la Fondation Vediorbis depuis juin 2001.

## **B - Activités administratives et organisatrices**

1°) De 1971 à 1976, animation puis organisation extensive, dans le cadre de l'Association des Professeurs de Mathématiques de l'Enseignement Public, des cours de "Mathématiques modernes" dans toute l'Académie de Rennes à l'intention des adultes engagés dans la vie active et, particulièrement, des parents d'élèves.

2°) Organisation des séminaires de l'I.R.E.M. de Rennes (de 1973 à 1979) et de deux colloques nationaux inter-IREM (février 1978 et mai 1980). Co-responsable national I.R.E.M. d'une expérience pédagogique (O.P.C.) et responsable de son évaluation sur les programmes du 1er cycle.

3°) Organisation d'un stage inter-académique sur l'évaluation, regroupant 180 I.P.R. toutes disciplines, des I.D.E.N., Directeurs d'études d'Ecoles Normales, Principaux et Professeurs, en décembre 1979 à Rennes, puis son prolongement en stage académique (80 participants en mai 1980), et présentation de deux conférences au cours de ces stages.

4°) Organisation et direction, de 1969 à 1979, du stage annuel de Formation Continue des professeurs coopérants en Afrique Noire et Madagascar (deux semaines en Juillet).

En juillet 1979, responsabilité supplémentaire du stage des formateurs-conseillers pédagogiques de ces Etats.

5°) En juin 1982, désignation par le Ministère de l'Education Nationale comme chef du projet "Multi-Media, Multi-Publics" (ou BREIZETEL), projet pilote pour la France, puis nomination de Directeur du C.A.T.E.N. en novembre 1983. A ce titre, mise en place, en 83-84, d'un Conseil du Centre et d'un Conseil Scientifique.

6°) Organisation à Lannion, conjointement avec le C.N.E.T. et la collaboration de l'Université de RENNES I, d'une Université d'Eté sur le thème : "Les utilisations pédagogiques des nouvelles techniques de l'information et de la communication" du 2 au 23 juillet 1984. Organisation de l'Ecole d'Eté nationale de didactique de Marseille au C.I.R.M. d'août 1987, de celles de Plestin-les-Grèves (22) du 24 août au 2 septembre 1989 et du 29 août au 7 septembre 1991 et éditeur de leurs Actes. Co-organisation des Journées E.I.A.O. de l'E.N.S. de Cachan de janvier 1991, de février 1993 et co-éditeur de leurs Actes. Co-organisation du Colloque "20 ans de didactique des mathématiques en France" à l'I.N.R.P. du 15 au 17 juin 1993 et co-éditeur des Actes. Organisation des journées nationales de travail du thème informatique du G.R. "Didactique". Préparation et co-organisation d'un colloque national sur le thème "Méthodes d'analyse statistiques multidimensionnelles en didactique des mathématiques" en janvier 1995 à l'I.U.F.M. de Caen. Responsabilité pédagogique et scientifique, organisation et évaluation de l'Université d'Eté "Methodologie d'analyse de systèmes d'observation et d'évaluation de l'enseignement des mathématiques ; leurs retombées sur l'enseignement des mathématiques". Valbonne-Sophia Antipolis. 10-14 juillet 1995. Préparation et co-organisation de Journées internationales sur le thème "La fouille dans des données par la méthode d'analyse statistique implicite" en juin 2000 à l'I.U.F.M. de Caen. Et co-éditeur des Actes.

7°) Contribution à la création d'une équipe de Didactique au sein de l'I.R.M.A.R. (septembre 1986). Création et animation, sur le plan recherche fondamentale et appliquée, d'un groupe de 12 enseignants du secondaire, de l'I.R.I.S.A. et de l'I.R.M.A.R. depuis cette date et jusqu'en 1998.

8°) Membre du Conseil Scientifique du GdR "Didactique et Acquisition des Connaissances Scientifiques", de la revue « Recherche en Didactique des Mathématiques » (La Pensée Sauvage) depuis 1996, de la revue « Quaderni di Ricerca in Didattica del G.R.I.M. (Université de Palerme) depuis 1996.

9°) Membre du Bureau de l'Association pour la Recherche en Didactique des Mathématiques, depuis sa création en septembre 1992 (réélu en 1995 et 2001), chargé de la trésorerie.

10°) Organisation, de 1986 à 1997, du séminaire régulier de didactique de l'I.R.M.A.R. et éditeur de ses Actes.

11°) Direction du service Formation Continue de l'IRESTE de 1988 à 1994 : gestion des stages, leur évaluation, mise en place de stages nouveaux, charge des relations extérieures. Responsabilité de la formation continue des personnels de 1988 à 1999.

12°) Chef de la Délégation Française au Congrès ICMI 8 à Séville 14-21 Juillet 1996 13; Préparation et co-organisation des Journées "La fouille dans les données par la méthode d'analyse statistique implicative", 23-24 juin 2000 à l'IUFM de Caen

13°) Organisateur et président du Comité Scientifique et de Programme des Journées sur « La fouille dans les données par la méthode d'analyse statistique implicative », IUFM de Caen, 23-24 juin 2000

14°) Membre fondateur de l'Association « Extraction et Gestion des Connaissances (EGC) » et membre des comités de programme des colloques organisés annuellement par l'Association depuis janvier 2000.

15°) Co-organisateur et président du Comité Scientifique et de Programme des 3èmes Rencontres Internationales sur l'Analyse Statistique Implicative ( A.S.I.) organisées à l'Université de Palerme (6-8 octobre 2005).

## **C - Missions**

1°) A l'occasion d'une dizaine de missions en Afrique Noire et Madagascar, participation à la mise en place, dans ces Etats, de la réforme de l'enseignement des Mathématiques et des I.R.E.M. nationaux.

2°) Contribution à la réflexion et la mise en place d'un enseignement à distance à l'occasion de missions du Ministère des Relations Extérieures au Québec (1983), en Colombie (1983) et en Turquie (1984).

3°) Missions d'appui scientifique sur la didactique et l'analyse de faits de didactique à l'E.N.S. de Rabat (1989) et l'Université de Fès (1989 et 1991). Ces missions ont été suivies de stages d'universitaires Marocains dans mon équipe et d'un projet de coopération entre l'Université de Fès et l'Université de Rennes 1.

4°) Missions au Brésil (1991, 1992 et 1993), à la demande du Ministère de l'Education Nationale Brésilienne et du Ministère des Affaires Etrangères Françaises, pour aider à la mise en place de structures de formation et de recherche sur l'Informatique Educative, en tant que Consultant français pour l'Informatique. Ces missions ont été suivies d'un stage de doctorants Brésiliens dans mon équipe. Elles doivent aussi s'accompagner de la création d'une revue scientifique franco-brésilienne sur la didactique des sciences et sur l'E.I.A.O., Responsable général sur le versant français, j'assure la mise en place d'un Comité scientifique et d'un Comité de rédaction mixtes . La publication sera soutenue par la France et assurée au Brésil par l'I.N.E.P. Elles donnent lieu à la signature d'un accord de coopération ( Université P.U.C. de Sao Paulo) et à d'autres projets d'accord (CAPES-COFECUB avec l'Université Fédérale de RIO).

5°) Mission en Argentine (1993) dans des cadres et selon des objectifs comparables aux précédents. Définition des actions à venir avec les autorités ministérielles régionales de Mendoza et Cordoba et le Secrétaire de l'Evaluation de la qualité de l'Education au Ministère de la Culture et de L'Education ^ Buenos Aires.

6°) Mission du M.A.E. et conférences sur invitation à l'Université de Fès (26 au 31 octobre 1994) et ^ l'E.N.S. de Marrakech (2 et 3 novembre 1994).

7°) Mission à Sao Paulo du 26-11-94 au 1-12-94 dans le cadre de l'accord PUC-IRMAR et à la demande du Brésil (Ministère de l'Education Nationale-I.N.E.P.) pour participer au II Seminario Novas Perspectivas da Educaçao Matematica no Brasil.

8°) Missions à Thessalonique du 8 au 12 Janvier 1995, puis du 28 octobre au 3 novembre 1995 sur invitation de l'Institut Français dans le cadre de l'accord ERASMUS entre l'Université de Rennes et celle de Thessalonique.

9°) Missions à Nicosie du 23 au 30 octobre 1997, du 24 au 29 Octobre 1998, du 13 au 17 janvier 2000 et du 4 au 8 novembre 2001 sur invitation de l'Ambassade de France et de l'Université de Chypre

## **D - Activités scientifiques**

1°)Membre du Jury d'oral d'entrée à l'Ecole Nationale Supérieure de Chimie de Rennes de 1967 à 1991.

2°)Membre des Comité de Rédaction du "Journal de la Formation Continue et de l'E.A.O." (de 1985 à 1989), de la Revue "Petit x" (Université de Grenoble) de 1985 à 1995 et de la Revue "Recherches en didactique des Mathématiques" (soutien C.N.R.S.) de 1986 à 1996 .

3°) Membre des Comités Scientifiques des Journées E.I.A.O. de Cachan (1991,1993, 2001, du Colloque "20 ans de didactique des mathématiques en France" (INRP, 1993), du Colloque "Méthodes d'analyses statistiques multidimensionnelles en didactique des mathématiques" (IUFM de Caen), des 4èmes Rencontres de la Société Francophone de Classification organisées à Vannes en septembre 1996 et des 5èmes organisées à Lyon en septembre 1997.

4°) Dans le cadre de l'exposition du Musée de la Villette "Horizons Mathématiques" présentée à Rennes en janvier 1987, mise en place et évaluation d'un Projet d'Action Educative (P.A.E.) sur "Image et reliquats des Mathématiques", enquête auprès d'un échantillon représentatif de 1000 personnes.

5°) Réalisation de nombreux films pédagogiques et didactiques à l'I.R.E.M. de Rennes et dans le cadre de l'O.F.R.A.T.E.M.E. (C.N.D.P.).

6°) Invitation comme conférencier, au Congrès du CIRADE (U.Q.A.M. Québec 1986), aux Colloques NATO de Grenoble (1989), d'Eindhoven (1990), au Colloque de didactique d'Oran (1990), au Colloque INFOCON à Rio de Janeiro (1993), au Colloque I.N.E.P. de Sao Paulo (1994), au Colloque sur la didactique des mathématiques à l'E.N.S. de Casablanca(1996), au séminaire du G.R.I.M. de l'Université de Palerme (1997 et 2000), au Colloque sur la

didactique des mathématiques à l'université de Safi (1999), aux journées sur la méthode implicite à l'Université de Castellon (2001).

7°) Rapport de Thèses d'Université: I.Guzman Retamal (Strasbourg, 1990), B.Capponi (Grenoble, 1990), B. Mopondi (Bordeaux, 1992), T. Moretti (Strasbourg, 1992), A.Dagher (Paris 7, 1993), S.B.Sokona (Grenoble, 1993), J.P.Levain (Paris 5, 1994), J.Guiet (Paris 5, 1994), D.Gilis (Paris 5, 1994), F.Spagnolo et E.Lacasta (Bordeaux 1, 1995), H.Abroughi-Hattab (Grenoble, 1998), O.Bouteglifine(Mons, 1999), A.Scimone (Palerme 2002) et nombreux jurys de Thèses.

8°) Entre 1989 et 1998 direction suivie de soutenances de sept thèses d'Université (A. Larher, S. Ag Almouloud, A. Totohasina, H. Ratsimba-Rajohn, M.Bailleul, M.Polo, D.Lahanier-Reuter ). Direction depuis 1998 d'une thèse de l'Université de Rennes I en didactique des mathématiques et analyse des données. En 1999-2000, tutorat d'un doctorat-sandwich "Processos inconscientes em situações construtivistas de aprendizagem por projetos, enriquecidas com as novas tecnologias da Informação e comunicação" présentée par Mme Regina de Leao d'AGORD le 6 juin 2000, ^ l'Université Fédérale de Rio Grande do Sul, Porto Alegre

9°) Plus de cinquante articles personnels ou collectifs ont été publiés dans des revues à comité de lecture. Rédaction, en outre, d'un ouvrage didactique aux Editions Nathan et direction d'une collection scolaire aux mêmes Editions.

10°) Communications ou séminaires:

- à l'I.R.M.A.R. : 1980, 1990, 1992 ;
- à l'Université de Rennes 2 : 1980, 1993 ;
- dans les I.R.E.M. : Besançon, Bordeaux, Brest, Caen, Clermont (3 fois), Grenoble (3 fois), Limoges, Lyon, Nancy-Metz, Nantes, Nice, Orléans, Paris 7, Poitiers (2 fois), Rennes (2 fois), Reims, Strasbourg, Toulouse (2 fois) ;
- lors des journées nationales de l'A.P.M.E.P.: Dijon (1974), Orléans (1975), Rennes (1976), Poitiers (1982), Rouen (1988), Poitiers (1993), Brest-Loctudy (1994); des journées régionales : Rennes (1978, 1983, 1994), Toulouse (1995) ;
- au Séminaire National de Didactique de Paris : 1979, 1982, 1988, 1992 ;
- à l'Université d'été de Toulouse : 1990 ;
- à l'Université d'automne de Tours : 1990 ;
- au cours des Ecoles d'été de didactique : 1980, 1986, 1991 ;
- lors des Congrès de l'A.S.U. : Nice (1978), Toulouse (1986), Strasbourg (poster 1991), des 1ères Journées de la Société Francophone de Classification : Brest (1992), des Secondes : Tours (1994), des 4èmes : Vannes (1996) et des 7èmes : Nancy
- lors du colloque "Méthodes d'analyses de données multidimensionnelles en didactique des mathématiques" : IUFM Caen (1995)
- lors de la Conférence internationale sur l'analyse de données ordinales et symboliques, OSDA'95, Télécom Paris (juin 95),
- lors de l'Université d'Eté de Valbonne-Sophia Antipolis (juillet 1995),
- lors du Colloque "Mathématiques et formation des ingénieurs" organisé à Nantes par l'Ecole des Mines et l'IRESTE,
- lors de la Fifth Conference of International Federation of Classification Societies (I.F.C.S.) de Kobe (Japon) en mars 1996,
- lors du colloque franco-marocain sur la didactique des mathématiques de Casablanca 29-31 Mai 1996,
- lors du Congrès ICTMA 8 tenu à Brisbane du 1er au 5 Août 1997,
- dans le cadre du 3ème cycle de didactique à l'université de Pampelune : cours et conférence (25-27 mars 1998),
- dans le cadre du 3ème cycle de didactique à l'Université de Cagliari : cours et conférences (5-14 avril 1998),
- lors de la 22nd Conference of the International Group for the Psychology of Mathematics Education (Stellenbosch, Afrique du Sud, 10-17 juillet 1998),
- dans le cadre de l'APMEP, conférence à Albi le 20 Janvier 1999.
- lors du stage de formation continue des professeurs de mathématiques de la région de Larissa en Grèce, stage tenu à l'Université de Besançon du 11 au 15 mai 1999.
- lors du 2ème Colloque International sur la Didactique des Mathématiques de Safi (26-29 mai 1999), deux conférences et une animation de table ronde sur invitation de l'Ambassade de France à Rabat et du Ministère de l'Education Nationale Marocain.
- lors de la 3ème Université d'Eté de l'A.P.M.E.P. de Marseille (juillet 1999), une conférence et animation de deux ateliers.
- sur invitation de l'Université de Chypre, conférence à Nicosie (janvier 2000),
- sur invitation de l'Université de Palerme, conférence à Palerme (mai 2000)
- sur invitation de l'Université de Castellon (novembre 2001)
- au séminaire d'analyse de données du laboratoire Lise-Ceremade de Paris-Dauphine (mai 2000)
- Elaboration et analyse statistique des questionnaires d'évaluation des Ecoles d'été de didactique (1991 et 1993), de l'Université d'automne de Tours (1990) et de l'Université d'été de Valbonne-Sophia Antipolis (1995)
- lors des Journées ECD'2001 à l'Université de Nantes (18-19 janvier 2001), ECD'2002 à l'Université de Montpellier (21-23 janvier 2002), ECD'2003 à l'Université de Lyon III (22-24 janvier 2003)
- au séminaire d'analyse de données du laboratoire ERIC de l'Université de Lyon II (19 février 2001)



- sur invitation lors du workshop « Repenser le contrôle des connaissances avec l'évaluation automatisée », U.F.R. Sciences de l'Université de la Méditerranée, Marseille-Luminy, 14-15 juin 2002
- sur invitation, lors du Congrès « Argomentare, Congetturare, Dimostrare » à l'Istituto di Istruzione Superiore de Piazza Armerina (Sicile) du 21 au 25-02-03
- sur invitation, conférence au cours des Journées organisées par les Ecoles doctorales ECLIPs et Humanités de Lyon 2 sur le thème « Les outils informatiques d'aide au traitement de données » (Lyon-Bron le 4-4-03)
- sur invitation, dans les Laboratoires de psychologie expérimentale, de psychologie différentielle, le CEFOCOP de l'Université de Rennes 2 (Rennes le 18 avril 2003)
- sur invitation, conférence à l'Université de Castellon (16 et 17 juin 2003)
- sur invitation, conférence, cours et T.D. lors du Colloque (« O Método Estático Implicativo Utilizado em Estudos Qualitativos de Regras de Associação ») à l'Université P.U.C. de São Paulo (9 au 11 juillet 2003)
- Séminaire R.Gras et P.Kuntz à l'E.H.E.S.S. Paris « Extraction et structuration de R-règles par des hiérarchies orientées, le 21 juin. Ce sujet a été également présenté à l'E.S.I.E.A. de Laval, lors de la journée régionale COM du 25 juin.
- Communication lors des 2èmes Rencontres « Mathématiques Appliquées et Sciences de l'Homme » (MASH 04) sous le titre : « Hiérarchie orientée de règles généralisées sur des opinions », le 21 septembre 2004
- Communication lors des Journées EGC'05 à Paris 5 sur le thème : « Extraction de règles en Incertain par la Méthode Implicative » 18-1-05
- Séminaire de l'équipe COD du LINA-Université de Nantes sur « Quelques pistes sur l'extraction de règles d'association par l'analyse statistique implicative (ASI) le 3-2-05
- 11°) Participation à deux recherches en réponse à l'appel d'offres de la D.R.E.D. (1992) sur la recherche en Education : "Etude de questions relatives à l'utilisation de représentations graphiques dans l'enseignement des disciplines scientifiques" (responsable: Mme S.Maury, Université de Paris 5) et "Modélisation didactique et informatique des processus d'enseignement en mathématiques"(responsable: M. N.Balacheff, Université de Grenoble). Participation au P.R.C. Sciences Cognitives, projet " Spécification d'environnements d'apprentissage et prise en compte du contrat didactique" (resp. MM. N.Balacheff et L.Trilling, Université de Grenoble).
- 12°) Représentant de l'Université de Rennes 1 dans le cadre du programme ERASMUS en liaison avec l'Université de Thessalonique (Grèce) ; dans ce cadre, conférences sur invitation à l'Université Aristote et de Macédoine de Thessalonique (janvier 1995, octobre-novembre 1995). Dans le cadre ERASMUS-SOCRATES, conférences sur invitation à l'Université de Nicosie (octobre 1997 et novembre 1998).
- 13°)Participation aux travaux de l'équipe de l'Institut de Recherche en Informatique de l'Université de Nantes du Pr H.Briand (IRESTE-IRIN) dans ses travaux en Intelligence Artificielle (apprentissage symbolique et bases de données relationnelles) ;
- 14°)Responsabilité d'un contrat d'encadrement doctoral et de recherche d'octobre 1994 à septembre 1998.
- 15°)En résumé, au cours de mes recherches, j'ai élaboré deux cadres conceptuels théoriques:
  - en didactique, une taxonomie d'objectifs cognitifs, utilisée dans de nombreux pays pour l'évaluation des apprentissages,
  - en analyse des données, une nouvelle méthode non symétrique : l'implication statistique (indice, graphe implicatif, hiérarchie implicative,...) dont l'intérêt ultérieur pour l'Intelligence Artificielle a été souligné par la Société Francophone de Classification ( 1ères, 2èmes, 4èmes et 7èmes Journées de la S.F.C. respectivement à Brest, septembre 1992, Tours, septembre 1994, Vannes, septembre 1996 et Nancy, septembre 1999), puis la communauté KDD lors des Journées ECD'2001 et conduit maintenant à des projets, des thèses, des sujets de recherche et de D.E.A. à l'IRESTE.

## E-Enseignement

Depuis mon affectation en 1963 à l'U.E.R. de Mathématiques de Rennes, j'ai eu la charge de divers types d'enseignement magistral ou de travaux dirigés aussi bien en D.E.U.G. qu'en licence ou en D.E.A.:

- en mécanique rationnelle (licence),
- en analyse (licence),
- en probabilités et en statistiques (D.E.U.G. et licence),
- en théorie des graphes (licence),
- en programmation dynamique (licence et D.E.A.), - en didactique (licence),
- en préparation au C.A.P.E.S.

Dans le cadre des D.E.A. de Didactique ou d'Informatique, j'ai assuré des cours d'analyse de données et applications à la didactique à Bordeaux et à Marseille de 1977 à 1980, à Grenoble en 1987 et 1992, à Lyon en 1992 et 1993, à Paris 7 en 1996 et 1997, à Rennes 1 en 1997.

Dans le cadre du D.E.A. "Extraction de Connaissances à partir de Données" de Nantes-Lyon, j'ai assuré un cours sur l'Implication Statistique en janvier 2000, 2001 et 2002. En 2003, je co-encadre le DEA de Eugen Barbu

A l'IRESTE, mon enseignement, dans les deux filières d'Ingénieurs et en Formation Continue, a porté sur:

- l'analyse,
- l'algèbre linéaire,

- les probabilités et les statistiques,
- la recherche opérationnelle
- la logique et le raisonnement.

## F - Quelques publications majeures

Thèse de 3ème Cycle "Probabilités": *Sur quelques points de programmation dynamique stochastique*, dirigée par M. METIVIER, jury: R. FORTET, A. BRUNEL, soutenue le 20 juin 1969 à l'Université de Rennes 1

Thèse d'Etat "Mathématiques et Applications": *Contribution à l'étude expérimentale et à l'analyse de certaines acquisitions cognitives et de certains objectifs didactiques* dirigée par M. METIVIER ; jury: J.P. CONZE, B. MALGRANGE, M. POSTIC, I.C. LERMAN, G. VERGNAUD, G. BROUSSEAU, soutenue le 3 octobre 1979 à l'Université de Rennes 1.

### Autres publications depuis la thèse d'Etat:

Gras R. [1980] : Elaboration et évaluation d'un graphe d'implication. *Actes des journées de classification de Toulouse*. C.N.E.T. 1983.

Gras R. [1981] : Analyse des correspondances entre deux ensembles. Analyse de données *Brochure A.P.M.E.P. Tome 2 n°40*

Lerman I.C., Gras R., Rostam H. [1981] : Elaboration et évaluation d'un indice d'implication pour des données binaires. *Revue "Mathématiques et Sciences Humaines" n°74 et n°75*.

Lerman I.C. et collaborateurs (dont Gras R.) [1981] : *Classification et analyse ordinaire des données*. Dunod.

Gras R. [1983] : Instrumentation de notions mathématiques ; un exemple: la symétrie. *Petit x. I.R.E.M. de Grenoble*.

Gras R. [1985] : Informatique, Télématique et Education. *Journal de la Formation Continue et de l'E.A.O. n°184*.

Degouys J., Gras R., Postic M. [1985] : Attitude à l'égard des mathématiques des élèves de 6ème. *Revue Internationale de Psychologie Appliquée n°34*.

Gras R. [1986] : Deux méthodes d'analyses de données didactiques. *Actes du colloque du C.I.R.A.D.E.-U.Q.A.M. Canada*

Gras R. [1986] : New insights into mathematics education with the microcomputer. *Actes du Congrès P.M.E. Londres*.

Gras R. [1986] : Panorama international des relations entre informatique et enseignement des mathématiques. *Actes de l'Ecole d'Eté de Didactique, Paris 7*.

Gras R. [1987] : Systèmes classifiants et banques de données. *Actes du Colloque de Sèvres du GRECO "Didactique et Acquisition des connaissances scientifiques. Ed. G. Vergnaud et coll. La Pensée Sauvage, Grenoble. I*

Gras R. [1987] : Pratique du nano-réseau. Préface. *R.D.I. Editions Toulouse*.

Gras R. et als [1987] : Computer Management of Mathematics Problems and of Thought Process Linked to their Solutions. *Rapport de Recherche de l'Université de Northfield, Minnesota*.

Gras R. [1988] : Aide logicielle aux problèmes de démonstration géométrique dans l'enseignement secondaire. *Petit x n°17. I.R.E.M. de Grenoble, p.65-83*.

Gras R. 1988] : Une situation de construction géométrique avec assistance logicielle. *Recherches en Didactique des Mathématiques. Vol. 8.3, p.195-230. La Pensée Sauvage, Grenoble*.

Gras R. et Larher A. [1989] : Le micro-ordinateur, outil de révélation et d'analyse du raisonnement déductif de l'élève. *Actes du Congrès P.M.E. Paris et Actes de l'Ecole d'Eté de Didactique de Plestin-les-Grèves. Ed. Gras R. Université de Rennes 1*.

Gras R. et als [1989] : Image et reliquats de Mathématiques. Un sondage. *Bulletin n°369 de l'A.P.M.E.P. Paris*.

Gras R. et Giorgiutti I. [1990] : Le micro-ordinateur, outil interactif dans l'aide à la démonstration. *Actes de l'Université d'Eté de Toulouse "Informatique et Enseignement de la Géométrie". I.R.E.M. de Toulouse*.

Gras R. [1990] : Evaluation de l'Université . *Actes de l'Université d'Automne "Etre Professeur de Mathématiques à l'aube du 20<sup>ème</sup> siècle" de l'A.P.M.E.P. Ed Université d'Orléans-Tours*.

Gras R. [1991] : Implication statistique, une application en didactique des mathématiques. *Actes des XXIIIèmes Journées de statistiques de Strasbourg. Euro-Congrès U.L.P. Ed*.

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## 4. *Elenco dei Lavori e CV di Michele Pellerey*

### **I° Curriculum vitae.**

Nato a Genova il 18 maggio 1935, laureato in Matematica presso l'Università La Sapienza di Roma, ha insegnato Matematica e Fisica nei Licei per circa dieci anni. Dal 1968 ha insegnato, in qualità di Incaricato, Didattica della Matematica presso l'Università Pontificia Salesiana di Roma ed ha collaborato come assistente all'indirizzo didattico del Corso di laurea in Matematica presso l'Università La Sapienza di Roma.

Nel 1974 è diventato Professore Associato presso l'Università P. Salesiana di Roma; nel 1978 è stato promosso Professore Straordinario e nel 1981 Professore Ordinario di Didattica generale presso la stessa Università. Dal 1974 al 1978 ha insegnato anche Tecnologie Educative. Dal 1978 fino al 1998 ha insegnato Didattica Generale e Psicologia dell'Istruzione. Dal 1997 ha assunto l'insegnamento di Pedagogia generale, lasciando quello di Psicologia dell'Istruzione. Ha tenuto diversi seminari su Informatica e Didattica e Psicologia dell'educazione.

Nel 1975 si è perfezionato in Informatica presso l'Università di Lovanio (Belgio) e nel 1980 in Psicologia dell'Istruzione presso l'Università della California a Berkeley (U.S.A.).

Nell'Università Salesiana di Roma è stato Direttore dell'Istituto di Didattica dal 1976 al 1986; Preside della Facoltà di Scienze dell'Educazione dal 1986 al 1989; di nuovo Direttore dell'Istituto di Didattica dal 1989; Vice Rettore dal 1991 al 1997. Dal 1995 al 1997 è stato Preside della Facoltà di Scienze della Comunicazione Sociale. Nel luglio 1997 è stato eletto Rettore dell'Università P. Salesiana, carica che ha esercitato per due mandati fino al luglio del 2003.

Dal 1974 è membro della Commissione Internazionale per lo Studio e il Miglioramento della Matematica (CIEAEM) di cui è stato Vice Presidente dal 1981 al 1985 e Presidente dal 1985 al 1988. E' socio ordinario dell'Unione Matematica Italiana (UMI), dell'Associazione Italiana di Calcolo Automatico (AICA), dell'American Education Research Association (AERA), del National Council of Teachers of Mathematics (NCTM), della SIPED e della SIRD. E' iscritto all'albo degli Psicologi.

Dal 1974 al 1989 è stato condirettore della Rivista Internazionale di Scienze dell'Educazione "Orientamenti Pedagogici". E' membro del Comitato scientifico di numerose riviste tra cui: *Mathematical Behavior*, *Orientamenti Pedagogici*, *L'insegnamento della matematica*, *HD*, *La Nostra Famiglia*, *L'educatore*, *Tuttoscuola*, *Scuola Viva*, *Istruzione a Distanza*.

E' stato membro della Commissione ministeriale del Ministero della Pubblica Istruzione che ha redatto i Programmi della Scuola Elementare e di quelle che hanno redatto i programmi del Biennio e del Triennio della Scuola Secondaria superiore. E' stato consulente del Ministero del Lavoro per i problemi dell'Informatica e della Formazione a Distanza. E' stato membro del Comitato Nazionale per l'Informatica del Ministero della Pubblica Istruzione e della Commissione Psicologia-Scuola dello stesso Ministero, del Comitato scientifico del progetto Alfabetizzazione degli Adulti.

E' stato membro del Comitato culturale dell'Isfol. Ha condotto per l'Isfol varie ricerche tra cui alcune pubblicate presso i Quaderni di Formazione di detto Istituto come: *Informatica nella Formazione Professionale*; *Progettazione formativa, Teoria e Metodologia*; *Verso un Sistema di Orientamento e Formazione a Distanza*. Ha presieduto la prima sezione di lavoro della Conferenza nazionale sulla Formazione Professionale. E' stato membro, come esperto, del Comitato di Concertazione Nazionale per la Formazione Professionale. Partecipa attualmente al progetto di ricerca dell'ISFOL per la elaborazione di una Teoria della formazione e sullo sviluppo della formazione secondo metodologie di *Fad/e-learning*.

E' stato consulente della Regione del Veneto per i problemi della Formazione Professionale e dell'Informazione e Orientamento al Lavoro, dove ha diretto la sperimentazione del Progetto di formazione professionale nel settore della Grafica e presieduto la Commissione di Coordinamento delle sperimentazioni della formazione professionale della Regione del Veneto. E' stato membro della Commissione che ha redatto la Legge 10 sull'Orientamento e la Formazione Professionale della Regione del Veneto e membro del Comitato Scientifico della Giunta di quella Regione per la redazione del piano triennale di attuazione della stessa legge. E' stato impegnato sempre per la Regione Veneto nella redazione della nuova legge sulla Formazione e l'Orientamento professionale e sul Diritto allo Studio, nella predisposizione dei piani triennali e annuali sull'Osservatorio del mercato del lavoro, l'Orientamento, la Formazione professionale e le Politiche del lavoro, nello sviluppo della sperimentazione dei nuovi percorsi di istruzione e formazione professionale. E' stato membro del Comitato di Coordinamento delle Politiche di Formazione Professionale presso il Ministero del Lavoro.

E' stato Direttore del Comitato Scientifico dell'ISRE di Venezia e ha diretto in questa veste diverse ricerche e sperimentazioni per conto della Regione Veneto, in particolare sulla strutturazione dei servizi di orientamento, sulla formazione dei Coordinatori delle attività di orientamento, sulla valutazione delle condizioni di ingresso nella Scuola Secondaria Superiore e nella Formazione Professionale.

Dal 1994 svolge funzioni di consulenza e coordinamento per la Sperimentazione del percorso di Formazione Professionale iniziale presso la Provincia Autonoma di Trento. In tale funzione ha partecipato alla redazione dei Protocolli d'intesa tra il Ministero della Pubblica Istruzione e la stessa Provincia circa il passaggio diretto tra il biennio di Formazione Professionale e il triennio degli Istituti Tecnici Industriali e per Geometri. Presso detta Provincia ha svolto anche una Ricerca-Intervento sul sistema di valutazione degli apprendimenti nell'ambito della formazione professionale, i cui risultati sono stati pubblicati. Attualmente segue la sperimentazione dei quarti anni di formazione professionale diretti al Diploma e l'impostazione di un Sistema di Formazione Professionale Superiore.

E' stato membro del Consiglio Direttivo del CEDE e del Consiglio di Amministrazione dell'Invalsi, nell'ambito delle quali istituzioni ha fatto parte del Comitato scientifico per il progetto PISA.

E' consulente dell'ISFOL e del Ministero del Lavoro e delle Politiche Sociali per la sperimentazione di sistemi di formazione a distanza e di e-learning, nonché per la elaborazione di una teoria della formazione professionale iniziale e continua.

### **Elenco Articoli**

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## 5. Elenco dei Lavori e CV di Pietro Nastasi

È nato a Castelvetro (TP) il 22.5.1941.

Dopo un iniziale percorso in Fisica, ha conseguito la laurea in Matematica (1965) discutendo una tesi riguardante l'applicazione degli integrali di Stieltjes al calcolo della riserva matematica nelle assicurazioni in caso vita.

I suoi iniziali studi scientifici si sono rivolti all'Astronomia geodetica di posizione e alla climatologia dell'area di Palermo. Dalla fine degli anni '70, si è dedicato in modo sempre più professionale alla Storia delle Matematiche, disciplina che insegna dal 1985 presso la Facoltà di Scienze dell'Università di Palermo. In questo settore di ricerca, dagli iniziali studi di "storia locale" i suoi interessi principali si sono progressivamente orientati verso tematiche più generali e attualmente sono rivolti allo studio degli aspetti istituzionali della matematica italiana post-unitaria.

### Elenco delle principali pubblicazioni di Pietro Nastasi in Storia delle Matematiche

1982

1) **I primi studi sull'elettricità a Napoli e in Sicilia**, "Physis", **24** (1982), n. 2, pp. 237-264.

1983

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1984

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1986

11) **Le ricostruzioni apolloniane in Viète e Ghetaldi**, "Bollettino di Storia delle Scienze Matematiche", **6** (1986), n. 1, pp. 83-133 (con A. Brigaglia).

1987

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13) **Paolo Frisi e il problema della forma della terra**, in G. Barbarisi (a cura di), *Ideologia e scienze nell'opera di Paolo Frisi (1728-1784)*. Atti del Convegno, Angeli, Milano, 1987, 2 voll., **1**, pp. 99-144.

14) **De re vel de nomine. La controversie des forces vives en Italie aux environs de 1740**, "Dijalektika", **22** (1987), n. 1-2, pp. 59-80 (con L. Indorato).

1988

15) **Ruggiero Giuseppe Boscovich: Lettere ad Anton Maria Lorgna. 1765-1785.**, "Accademia Nazionale delle Scienze detta dei LX", Scritti e Documenti, VII, "Documenti Boscovichiani I", Roma, 1988 (con U. Baldini).

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19) **The 1740 Resolution of the Fermat-Descartes Controversy**, "Historia Mathematica", **16** (1989), pp. 137-148 (con L. Indorato).

1990

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1991
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1992
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1993
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