The Mathematics Education into the 21\textsuperscript{st} Century Project

University of Applied Sciences, Dresden

Programme

of the 10\textsuperscript{th} International Conference

“\textit{Models in Developing Mathematics Education}”

Sept. 11-17, 2009

Major Sponsors
CASIO, Autograph, Dynatech, VON ARDENNE

Printing supported by the Dresden University of Applied Sciences
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<th>Date</th>
<th>Location</th>
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<th>Event Description</th>
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<tr>
<td>Friday September 11</td>
<td>Pullman Dresden Newa Hotel</td>
<td>9.00 - 21.30</td>
<td>Conference Registration at the Pullman Dresden Newa Hotel</td>
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<td>18.00 - 21.30</td>
<td>Welcome Reception in the Pullman Dresden Newa Hotel</td>
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<tr>
<td>Saturday September 12</td>
<td>Dresden University of Applied Sciences</td>
<td>9.00 - 10.00</td>
<td>Opening Welcome Session in Room Z254</td>
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<td></td>
<td><strong>Prof Fayez Mina &amp; Dr Alan Rogerson</strong> (Project Coordinators)</td>
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<td><strong>Prof. Dr. Ludwig Paditz</strong> (Chairman of the LOC)</td>
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<td>Greetings from Guests and Sponsors</td>
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<td><strong>Music:</strong> Members of the Chamber Orchestra of the University</td>
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<td>10.00 - 10.30</td>
<td>Conference Group Photo</td>
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<td>10.30 - 11.00</td>
<td>Morning Tea/Coffee</td>
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<td>11.00 - 12.30</td>
<td><strong>Open Forum of Ideas</strong> This repeats the successful sessions in previous conferences when educational materials and software are displayed, exhibited and discussed by all participants. It will be an “open market” or smorgasbord where people are free to wander around looking at everything, and/or exhibiting their own materials.</td>
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<td>12.30 - 14.00</td>
<td>Lunch</td>
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<td>14.00 - 15.30</td>
<td><strong>Session 1: Parallel Working Groups</strong></td>
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<td>15.30 - 16.00</td>
<td>Afternoon Tea/Coffee</td>
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<td>16.00 - 17.00</td>
<td><strong>Session 2: Workshops</strong></td>
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<td>18.00 - 21.30</td>
<td>Welcome Reception in the <strong>Dresden City Hall (Ratskeller)</strong> <em>(please be there on time just before 18.00!)</em></td>
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<td><strong>Music:</strong> Students from the Landesgymnasium für Musik, Dresden</td>
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<tr>
<td>Sunday September 13</td>
<td>Dresden University of Applied Sciences</td>
<td>8.50 - 11.00</td>
<td><strong>Session 3: Parallel Working Groups</strong></td>
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<td>11.00 - 11.30</td>
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<td>11.30 - 13.00</td>
<td><strong>Plenary Forum:</strong> The State of Mathematics Education in Germany</td>
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<td>Panel: <strong>Rüdiger Vernay, Heinz Böer &amp; Eckhard Müller</strong></td>
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<td>chaired by <strong>Michael Katzenbach</strong>, in Room Z254</td>
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<td>13.00 - 14.00</td>
<td>Lunch</td>
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<td>14.00 - 15.30</td>
<td><strong>Session 4: Parallel Working Groups</strong></td>
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<td>16.00 - 17.00</td>
<td><strong>Session 5: Workshops</strong></td>
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<td><strong>Evening Free</strong></td>
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<td>Monday September 14</td>
<td>Full Day Excursion</td>
<td>8.00</td>
<td><strong>Boarding our boat “Leipzig” at the City Pier 5 (Terrassenufer)</strong> <em>(please be there on time at 8.00!!)</em></td>
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<td>11.30-12.45</td>
<td>Lunch</td>
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<td>12.45-13.30</td>
<td><strong>Disembark our boat “Leipzig” for Buses to Königstein Fortress</strong></td>
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<td>15.10-15.40</td>
<td>Buses from Königstein Fortress to our boat “Leipzig”</td>
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<td>15.40</td>
<td><strong>Our boat “Leipzig” departs</strong> <em>(please be on time to catch it!!)</em></td>
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<td>19.00-19.15</td>
<td><strong>Disembarking from our boat “Leipzig” in Dresden</strong></td>
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<td><strong>Evening Free</strong></td>
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Tuesday September 15  Dresden University of Applied Sciences

9.00 - 10.30  Session 6: Parallel Working Groups
10.30 - 11.00  Morning Tea/Coffee
11.00 - 13.00  Session 7: Parallel Working Groups
13.00 - 14.00  Lunch

Afternoon and Evening free (time to use those transport passes!)

Wednesday September 16  Dresden University of Applied Sciences

9.00 - 10.30  Session 8: Parallel Working Groups
10.30 - 11.00  Morning Tea/Coffee
11.00 - 13.00  Session 9: Parallel Working Groups
13.00 - 14.00  Lunch
14.00 - 15.30  Session 10: Parallel Working Groups
15.30 - 16.00  Afternoon Tea/Coffee
16.00 - 17.00  Session 11: Parallel Working Groups
18.30 - 24.00  Conference Gala Dinner – TU Dresden Alte Mensa,
               Street: Mommsenstraße 13.
               Live Music: Dresden Salon String Orchestra

Thursday September 17  Dresden University of Applied Sciences

9.00 - 10.30  Inaugural Brian Griffiths Commemorative Address in Room Z254
              Language and Mathematics: A Model for Mathematics in the 21st Century
              David K. Pugalee (IQB Visiting Professor)
10.30 - 11.30  Closing Session & Farewells
11.30 - 12.30  Lunch and Departures

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Working Groups & Leaders For Parallel Working Sessions

1. Technology: All Sessions will be in Room Z254
   Barry Kissane, Nakhshin Karim, Mehryar Nooriafshar

2. Comparative Education: All Sessions will be in Room Z211
   George Malaty, Miriam Amit, Filippo Spagnolo (12-13 Sep),
   Franco Favilli (15-16 Sep), (Anna Baccaglini-Frank: 12 Sep)

3. Teacher Education: All Sessions will be in Room Z336
   Marjorie Henningsen, Beverly Ferrucci, Angela Pesci

4. Innovation: All Sessions will be in Room Z343
   Willy Mwakapenda, Bronwyn Ewing, Ariana Vacaretu

5. Problem Solving: All Sessions will be in Room Z312
   Medhat Rahim, Gunter Graumann, Tanja Soucie (Hayley Barnes: 16 Sep)

6. Applications & Statistics: All Sessions will be in Room Z308
   Gail Burrell, Ivan Meznik, Viktor Freiman

7. Research on Learning: All Sessions will be in Room Z208
   Erik de Corte, Hanan Innabi, David Pugalee
Saturday 14.00-15.30  Session 1  Parallel Working Groups

1. Technology
   How to increase the understanding of differentials by using the Casio-calculator model 9860 G I/II to solve differential equations.
   Bjørn Bjørneng
   CAS and calculation competence of students
   Rainer Heinrich

2. Comparative Education
   Corey Lock & David Pugalee
   Mathematics and Mathematics Education Development in Finland: the impact of curriculum changes on IEA, IMO and PISA results
   George Malaty

3. Teacher Education
   Mathematics education reform: The role of coherence within the complexity of change
   Christine Suurtamm & Barbara Graves
   The Relationship between Didactics and Classroom Management: Towards New Tools for the Training of Math Teachers
   Michel Beaudoin & Catherine Lanaris

4. Innovation
   The Best of Both Worlds: Teaching Middle School and College Mathematics
   Daniel J. Brahier
   Virtual Manipulatives: Design-based Countermeasures to Selected Potential Hazards
   William R. Speer

5. Problem Solving
   How do rabbits help to integrate teaching of mathematics and informatics?
   Agnis Andžāns & Laila Rācene
   Presentation of the Digital School Journal Revista Escolar de la Olimpiada Iberoamericana de Matemática, Sponsored by the O.E.I. Organización de Estados Iberoamericanos para la Educación, la Ciencia y la Cultura
   Francisco Bellot-Rosado

6. Applications
   Matrices and Routing
   Ajda Fošner
   Learning Mathematics through Scientific Contents and Methods
   Astrid Beckmann
7. Research on Learning  
Teaching Mathematics in Eniaio Lykeio (Unified Upper-Secondary Education) with the use of New Technologies  
Eleni Tsami  

Can Early Algebra lead non-proficient students to a better arithmetical understanding?  
Sandra Gerhard  

Saturday 16.00-17.00  Session 2  Workshops  

Autograph Workshop for ages 11-16  (Computer Room Z355)  
Douglas Butler (15.45-17.00)  

Good classroom practice – how a new journal supports this  (Room Z343)  
Rüdiger Vernay  

Disrupting linear models of mathematics teaching/learning  (Room Z211)  
Barbara Graves & Christine Suurtamm  

Workshop: Some interesting math problems for high school students solved by graphic calculators CASIO  (Computer Room Z354)  
Koreňová L. & Židová D  

Using History to Teach Mathematics  (Room Z208)  
Jacqui Klowss  

Problems to put students in a role close to a mathematical researcher  (Room Z308)  
Nicolas Giroud  

Sunday 8.50-11.00  Session 3  Parallel Working Groups  

1. Technology  
Linking Geometry, Algebra and Calculus with GeoGebra  
Josef Böhm  

Integrating Technology into the Mathematics Classroom: Instructional Design and Lesson Conversion  
Marcia M. Burrell & Clayton Cohn  

Balancing the Use of Technology and Traditional Approaches in Teaching Mathematics within Business Courses  
Mehryar Nooriafshar
2. Comparative Education
- Models of Mathematics Curriculum Development in Egypt
  Fayez M. Mina
- Large-Scale Assessment as a Tool for Monitoring Learning and Teaching: The Case of Flanders, Belgium
  Erik De Corte, Rianne Janssen & Lieven Verschaffel
- Preventing ‘Pushing for Privileged Passage’: A study of a charter school working to step back from tracking
  Tina Louise Johnston

3. Teacher Education
- Mathematics Teacher TPACK Standards and Revising Teacher Preparation
  Margaret Niess
- Exploring mathematical identity as a tool for self-reflection amongst pre-service primary school teachers: “I think you have to be able to explain something in about 100 different ways”
  Patricia Eaton & Maurice OReilly
- Proportional Reasoning Models in Developing Mathematics Education Curricula for Prospective Elementary School Teachers
  Beverly J. Ferrucci & Jack Carter

4. Innovation
- Elementary Mathematics from an Advanced Standpoint and Elementary Views on Advanced Mathematics
  Ysette Weiss-Pidstrygach
- Community Engagement: Home School Partnership
  Marilyn Holmes
- Identifying Modelling Tasks
  Stefanie Meier

5. Problem Solving
- Mathematical Competitions for University Students
  Alexander Domoshnitsky & Roman Yavich
- How to Solve It
  Luigi Menna
- A Study On Problem Posing-Solving in the Taxicab Geometry and Applying Simcity Computer Game
  Tuba Ada & Aytaç Kurtuluş
6. Applications
   Rescuing Statistics from the Mathematicians.
     Mike Bedwell

   DeltaTick: Applying Calculus to the Real World through Behavioral Modeling
     Michelle H. Wilkerson-Jerde & Uri Wilensky

   Modelling in Mathematics and Informatics: How Should the Elevators Travel so that Chaos Will Stop?
     Andreas Filler

7. Research on Learning
   Elementary Students’ Construction of Proportional Reasoning Problems: Using Writing to Generalize Conceptual Understanding in Mathematics
     Millard Lamm & David K. Pugalee

   Basic knowledge and Basic Ability: A Model in Mathematics Teaching in China
     Cheng Chun Chor-Litwin

   A New Pedagogical Model for Teaching Arithmetic.
     David Womack

Sunday 14.00-15.30  Session 4  Parallel Working Groups

1. Technology
   Using Technology to Discover and Explore Linear Functions and Encourage Linear Modeling
     Tanja Soucie, Nikol Radović, Renata Svedrec & Helena Car

   A way of computer use in mathematics teaching -The effectiveness that visualization brings-
     Shuichi Yamamoto & Naonori Ishii

2. Comparative Education
   The “Kidumatica” project - for the promotion of talented students from underprivileged backgrounds.
     Miriam Amit

     Angelique Seifert & David K. Pugalee

3. Teacher Education
   How Can a System with no Public Exams be Fair?
     Kerry J Thomas

   Elementary Teacher Candidates’ Understanding of Rational Numbers: An International Perspective
     Rose Elaine Carbone
4. Innovation
Recognising Torres Strait Islander Women’s Knowledges in their Children’s Mathematics Education
Bronwyn Ewing
Internet Mathematical Olympiads
Alexander Domoshnitsky & Roman Yavich

5. Problem Solving
A Collaborative Model for Calculus Reform—A Preliminary Report
Po-Hung Liu, Ching-Ching Lin, Tung-Shyan Chen, Yen-Tung Chung, Chiu-Hsiung Liao, Pi-Chuan Lin, Hwai-En Tseng & Ruey-Maw Chen
Helping a Young Child Connect Fact Family Addition and Subtraction using Tools
Terri L. Kurz, H. Bahadir Yanik & Jorge Garcia

6. Applications
The Role of Dynamic Interactive Technology in Teaching and Learning Statistics
Gail Burrill
One mathematical formula in the science textbook: looking into innovative potential of interdisciplinary mathematics teaching
Viktor Freiman

7. Research on Learning
Essential Ingredients that form the basis for Mathematical Learning: What has 20 years of teaching mathematics to teenagers taught me?
Ruth J. Duffield
Origami-Mathematics Lessons: Researching its Impact and Influence on Mathematical Knowledge and Spatial Ability of Students
Norma Boakes

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Sunday 16.00-17.00  Session 5   Workshops

Algebraic Thinking- More to Do with Why, Than X and Y  (Room Z208)
W.J.J. Windsor

Autograph Workshop for ages 16-18  (Computer Room Z355)
Douglas Butler  (15.50- 17.00 - optional continuation to 17.20)

Individual Approaches in Rich Learning Situations Material-based Learning with Pinboards  (Room Z336)
Michael Katzenbach

How to teach modeling in mathematics classrooms? The implementation of modeling tasks. Comparing learning arrangements and teacher methods with respect to student’s activities.
Céline Liedmann  (Room Z454)

Workshop Summary Mathematics brought to life by the Millennium Mathematics Project
Nadia Baker  (Room Z211)
Using Data Modeling at the Elementary Level to Make Sense of Doing Mathematics and Science (Room Z343)
   Marjorie Henningsen & Nisreen Ibrahim

Models for harnessing the Internet in mathematics education (Computer Room Z354)
   Barry Kissane

**Tuesday 9.00-10.30 Session 6 Parallel Working Groups**

1. Technology
   The use of technology to motivate, to present and to deepen the comprehension of math
   Damjan Kobal
   Solids of Revolution – from the Integration of a given Function to the Modelling of a Problem with the help of CAS and GeoGebra
   Otto Wurnig

2. Comparative Education
   A Model to Develop Mathematics Education: Modify the Public Traditional Perceptions of Mathematics-Case of UAE Schools’ Principals
   Hanan Innabi
   New Forms of Assessment in the South African Curriculum Assessment Guidelines: What Powers do Teachers Hold?
   Willy Mwakapenda

3. Teacher Education
   Mathematics Professional Learning Communities: Opportunities and Challenges in an Elementary School Context
   Douglas Franks
   Impact on Student Achievement of Teacher Participation in K-8 Mathematics Professional Development.
   Todd Frauenholtz & Derek F. Webb

4. Innovation
   How Involving Secondary Students in the Assessment Process Transforms a Culture of Failure in Mathematics to a Culture of Accountability, Self-Efficacy and Success in Mathematics: Student Action Plans, Assessment, and Cultural Shift
   Katharine W. Clemmer
   Family Maths and Complexity Theory
   Paul Webb & Pam Austin

5. Problem Solving
   Does the parameter represent a fundamental concept of linear algebra?
   Stefan-Harald Kaufmann
   The van Hiele Phases of Learning in studying Cube Dissection
   Shi-Pui Kwan & Ka-Luen Cheung
6. Applications

Project work: Is the Legacy of Ancient Greece and Rome really the Cradle of European Civilization?
   Darka Hvastija & Jasna Kos

A Discussion of different teaching strategies adopted during a Statistics tutorial
   Vasos Pavlika

7. Research on Learning

Transcribing an Animation: The case of the Riemann Sums
   May Hamdan

Language and Number Values: The Influence of the Explicitness of Number Names on Children's Understanding of Place Value
   Sandra Browning

Tuesday 11.00-13.00 Session 7 Parallel Working Groups

1. Technology

From a textbook to an e-learning course (E-learning or e-book?)
   Antonín Jančařík & Jarmila Novotná

Interactive PDF Documents in Math Education Focused on Tests for Differential Equations
   Silvie Kuráňová

Bridging the gap between technology design and school practice: a specific experiment within the ReMath Project
   Laura Maffei

2. Comparative Education

The Effect of Rephrasing Word Problems on the Achievements of Arab Students in Mathematics
   Asad Mahajne & Miriam Amit

A Cross-Cultural Comparison of Algebra 1 Students’ Achievement
   Sofokli Garo

The Learning of Mathematics for Limited English Proficient Learners: Preparation of Doctoral Level Candidates
   Theresa Perez & David K. Pugalee

3. Teacher Education

Pre-service teachers’ mathematics profiles and the influence thereof on their instructional behaviour
   Hayley Barnes

Connections between Mathematics and Arts & Culture: An exploratory Study with Teachers in a South African school
   Joseph Dhlamini
Investigating Elementary Teachers’ Mathematical Knowledge for Teaching Geometry: The Case of Classification of Quadrilaterals
Dicky Ng

4. Innovation

Some Initiatives in Calculus Teaching
Buma Abramovitz, Miryam Berezina, Abraham Berman & Ludmila Shvartsman

Analyzing the effects of a linguistic approach to the teaching of algebra: students tell “stories of development” revealing new competencies and conceptions
Annalisa Cusi

Localization of Learning Objects in Mathematics
Valentina Dagiene & Inga Zilinskiene

5. Problem Solving

The use of visualization for learning and teaching mathematics
Medhat H. Rahim & Radcliffe Siddo

To Teach Combinatorics, Using Selected Problems
Laurențiu Modan

Problem Fields in Elementary Arithmetic
Günter Graumann

6. Applications

A Four Phase Model for Predicting the Probabilistic Situation of Compound Events
Irma Jan & Miriam Amit

Cryptography and number theory in the classroom -- Contribution of cryptography to mathematics teaching
Katharina Klembalski

Toward Calculus via Real-time Measurements
Tine Golež

7. Research on Learning

Exploring the mathematics that children read in the world: A case study of Grade 8 learners in a South African School
Lesego Brenda Mokotedi

On Teaching Quality Improvement of a Mathematical Topic Using Artificial Neural Networks Modeling (With a Case Study)
Hassan. M. Mustafa & Ayoub Al-Hamadi

An innovative model for developing critical thinking skills through mathematical education
Einav Aizikovitsh & Miriam Amit
1. Technology
Using ClassPad-technology in the education of students of electrical engineering
(Fourier- and Laplace-Transformation)
Ludwig Paditz

Improving Student Interest, Mathematical Skills, and Future Success through
Implementation of Novel Mathematics Bridge Course for High School Seniors and
Post-secondary Students
Derek Webb, Glen Richgels, Marty J. Wolf, Todd Frauenholtz & Ann Hougen

2. Comparative Education
Cooperative Learning and Peer Tutoring to Promote Students’ Mathematics
Education
Angela Pesci

Creative Mathematical Activity of the Students in the Model of Differentiated
Teaching in Russian Federation
Ildar S. Safuanov & Valery A. Gusev

3. Teacher Education
An Alternate Route to Urban Mathematics Teaching: The NYC Teaching Fellows
Program
Laurel A. Cooley

Visual Modeling of Integrated Constructs in Mathematics As the Base of Future
Teacher Creativity
Eugeny Smirnov, Sergei Burukhin & Irina Smirnova

4. Innovation
Each and Every Student: The Stamford, Connecticut Model for Change in
Mathematics
Mona Hanna, Carrie Chiappetta

Proofs and "Puzzles”
Buma Abramovitz, Miryam Berezina, Abraham Berman & Ludmila Shvartsman

5. Problem Solving
Experience with solving real-life math problems in DQME II project
Korenová L., Dillingerová M., Vankuš P., Židová D

A class practice to improve student’s attitude towards mathematics
Maria Flavia Mammana & Mario Pennisi

6. Applications
The Role of the Music to Learn Geometrical Transformations
Daniela Galante

Using the Media as a Means to Develop Students’ Statistical Concepts
Marian Kemp
7. Research on Learning
   Paper&Pencil Skills in the 21st Century, a Dichotomy?
   Hartwig Meissner & Annabella Diephaus

   Reflections on an Initiative to Improve Junior Secondary School Pupils’ Understanding of Number
   Noel Johnston

Wednesday 11.00-13.00  Session 9  Parallel Working Groups

1. Technology
   Innovations in Podcasting and Screencasting Course Materials To Bring Mathematics to Life
   Paula Savich & Sandra Pierce

   Conjecturing (and Proving) in Dynamic Geometry after an Introduction of the Dragging Schemes
   Anna Baccaglini-Frank

   Creating and Utilizing Online Assignments in a Calculus Class
   Veselin Jungic, Deborah Kent & Petra Menz

2. Comparative Education
   Concept Literacy in Mathematics and Science: experiences with the development and use of a multilingual resource book in Xhosa, Zulu, English and Afrikaans in South Africa
   Marc Schäfer

   The influence of localization and materialization of mathematics activities on the indigenous first grade students’ learning effects: Two assessment results
   Li Tsung Wen Kuo, Wei-Hao Cheng & Chih-Chen Kao

   On Evaluation Problem of the Quality of Educational Models
   Vladimir A. Testov

3. Teacher Education
   Modelling the Transition from Secondary to Tertiary Mathematics Education: Teacher and Lecturer Perspectives
   Ye Yoon Hong, Suzanne Kerr, Sergiy Klymchuk, Johanna McHardy, Priscilla Murphy, Sue Spencer, Mike Thomas & Peter Watson

   Linking Teachers and Mathematicians: The AWM Teacher Partnership Program
   Pao-sheng Hsu, Suzanne Lenhart & Erica Voolich

   Developing explanatory competencies in teacher education
   Anke Wagner, Claudia Wörn & Sebastian Kuntze
4. Innovation

Modelling Geometric Concepts Via Pop-Up Engineering
Vivekanand Mohan-Ram

Reflective practices – a means to instil a deep learning approach to mathematics or another time consuming fad? Work-in-progress.
Mandy Parnell

Mathematics games: Time wasters or time well spent?
Paul Swan and Linda Marshall

5. Problem Solving

Chapter-spanning Review: Teaching Method for Networking in Math Lessons
Swetlana Nordheimer

Teaching for the objectification of the Pythagorean Theorem
Panagiotis Spyrou

Modelling tasks for learning, teaching, testing and researching
Gilbert Greefrath

6. Applications

Students’ knowledge of Application of Mathematics – From Diagnostics to Innovations
Reinhard Oldenburg

Building leadership capacity in the development and sharing of mathematics learning resources, across disciplines, across universities.
Anne L. Porter

Using physical experiments in mathematics lessons to introduce mathematical concepts
Simon Zell

7. Research on Learning

Clearness as a Principle of the Teaching of Mathematics
Ildar S. Safuanov & Irina G. Shamsutdinova

A Stochastic Model for the Process of Learning
Michael Gr. Voskoglou

Wednesday 14.00-15.30 Session 10 Parallel Working Groups

All Working groups should continue until 15.30 and use any available time to discuss the work of the group during the week and assist the group leaders to prepare a summary report of their progress.
1. Technology
   **Autograph**  The fun of localizing dynamic software  
   Douglas Butler

   **From Physical Model To Proof For Understanding Via DGS: Interplay Among Environments**  
   Iman M. Osta

2. Comparative Education
   A program for reducing teacher's resistance to changes in curriculum in centralized education systems. An experience on changes of mathematics text books in Iran based on distinction results.  
   Zohreh Ketabdar

   **Open-Ended Approach To Teaching And Learning Of High School Mathematics**  
   Radley Kebarapetse Mahlobo

3. Teacher Education
   Accompanying “in-service teaching” internships of prospective mathematics teachers – a model for encouraging exchange between theory and practice using the triple coaching approach  
   Sebastian Kuntze, Anke Wagner & Claudia Wörn

   **Professional Development for Mathematics Teachers Through Lesson Study**  
   Azimeh Sadat Khakbaz

4. Innovation
   Math lessons for the thinking classrooms  
   Ariana-Stanca Văcărețu

5. Problem Solving
   **An Apt Perspective of Analysis**  
   Nanad Kishore & Ramesh Chandra

6. Applications
   Understanding Quadratic Functions Using Real World Problems and IT  
   Nakhshin A. Karim

7. Research on Learning
   In what case is it possible to speak about Mathematical capability among pre-school children?  
   Anna V. Beloshistaya

**Wednesday 16.00-17.00  Session 11  Parallel Working Groups**

All Working groups should continue to meet and assist the group leaders to prepare a summary report of their progress. These reports will be the Position Papers for our next conference in 2011.
The Mathematics Education into the 21st Century Project wishes to thank for their support:

Saxony Ministry of Education
Saxony Ministry of Science and the Arts
Dresden University of Applied Sciences (HTW)
The Institute for Educational Progress (IQB) Berlin
Dresden University of Technology (TU)
Gesellschaft für Didaktik der Mathematik (GDM)
MUED, DQME II, MAV, MERGA, Wholemovement
The Hong Kong Institute of Education
ALMA Teacher Training Centre, Poland

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