

# Second Central- and Eastern European Conference on Computer Algebra- and Dynamic Geometry Systems in Mathematics Education

11-13 July, 2009 RISC, Linz (Castle of Hagenberg), Austria

## Second Announcement

### Welcome

After a successful conference held at the University of Pecs in Hungary in June 2007 we are delighted to announce that the CADGME conference continues. Professor Bruno Buchberger and his team at RISC volunteered to host the conference this year in the beautifully located Castle of Hagenberg. As for the first CADGME conference we want to create a forum for Central- and Eastern- European colleagues, and for all interested academics from around the globe to exchange ideas and nurture collaboration. Within the CADGME program there will be a number of working group sessions and workshops. In addition, the Convergence on Mathematics Assistants (ConvMathAssist) group will hold its annual meeting as a special working group at CADGME. We are also pleased to announce that the first International GeoGebra conference will be held right after CADGME-2009 (14-15 July). We hope that you will join us in Hagenberg in July 2009.

### Keynote speakers

**Paul Andrews** (University of Cambridge, UK)  
Understanding the cultural dimension in research in mathematics teaching and learning

**Ralph-Johan Back** (Åbo Akademi University, Turku, Finland)  
Structured derivations: a method for teaching proof in high school mathematics

**Bruno Buchberger** (RISC, University of Linz, Austria)  
Mathematical Invention: How Much Can be Automated?

**André Heck** (University of Amsterdam, Netherlands)  
Modelling in Cross-Disciplinary Authentic Student Research Projects

**Jozef Hvorecký** (City University Bellevue, Bratislava, Slovakia)  
Using a Managerial Analogy for Making Mathematics More Attractive

### Call for papers

The aim of the conference is to continue offering a forum for academics in Central- and Eastern Europe in order to share their experiences and practices with technology-assisted mathematics teaching with colleagues from all around the world. Hence, we kindly invite colleagues - everyone from everywhere - to participate and contribute to the conference.

### How to contribute

#### **Contributed talks**

The talks will be given in parallel sessions; the length is 30 minutes including discussion.

#### **Posters**

Research results can be presented on posters; there will be time allocated to discuss posters.

#### **Publication, proceedings**

##### **Abstracts**

The abstracts of contributed talks and posters will be published on the conference proceedings website. The length is maximum 300 words, the format will be available on the conference web page.

**Website:** <http://www.risc.uni-linz.ac.at/about/conferences/cadgme2009/>

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## Refereed Papers

Papers can be sent for publication to the scientific committee. We are in discussion with several journals that might publish a special issue with papers presented at CADGME-2009. Papers are to be submitted by 15 September 2009.

## Important dates and deadlines

Second Announcement	15 January 2009
Working group proposals	15 February, 2009
Workshop proposals	15 February, 2009
Abstract of contributed talks and posters	31 March, 2009
Acceptance notifications	31 May, 2009
Discounted registration	15 June, 2009
Final programme	30 June, 2009
End of pre-registration	1 July, 2009
Papers	15 September, 2009

Abstracts can be submitted on the conference website after registering.

## Topics for contribution

### Teaching

- The impact of CAS-DGS on mathematics teaching
- The changing role of the teacher
- Teacher learning
- Teacher training
- Distance learning and CAS

### Learning

- The impact of CAS-DGS on students' learning
- Students' attitudes toward CAS-DGS
- CAS-DGS understanding/knowledge
- Algebraic skills and CAS
- Instrumentation

### Curriculum

- Design of learning environments and curricula
- Implementation of curricula and classroom practices / Innovative practices

### Assessment

- Assessment in CAS-DGS environments
- CAS-DGS in Web-based assessment systems

### Foundations

- educational: logic based approaches to teaching mathematics
- conceptual: common foundations of educational software in mathematics
- technological: convergence of software components for education

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## Working groups

### **Dynamic Experiments and Interactive Modeling in the Classroom**

Janos Karsai, University of Szeged, Hungary

### **Future Trends in Interactive Geometry**

Ulrich Kortenkamp, Pädagogische Hochschule Schwäbisch Gmünd, Germany

### **Intergeo - Interoperable Interactive Geometry for Europe**

Ulrich Kortenkamp, Pädagogische Hochschule Schwäbisch Gmünd, Germany

### **Convergence on Mathematics Assistants (ConvMathAssist)**

Walther Neuper, TU Graz, Austria

## Workshops

### **Beyond DGS - Simulations and Scripting with Cinderella**

Ulrich Kortenkamp, Pädagogische Hochschule Schwäbisch Gmünd, Germany

Andreas Fest, Technische Universität Berlin, Germany

### **How to prepare interactive Mathematica demonstrations for classroom**

Janos Karsai, University of Szeged, Hungary

### **Learning Math, Doing Math: Deductive Thinking and Construction Tasks with The Geometer's Sketchpad**

A. Homero Flores, Math Teacher and researcher, Mexico

### **Learning More by Solving Series of Problems**

Martin Kollar, Slovakia Comenius University, Bratislava

Jozef Hvorecky, Slovakia Vysoka skola manazmentu, Bratislava

### **WebMathematics Interactive 2: A graphical user interface to computer algebra systems for students**

Zoltan Kovacs, Bolyai Institute, University of Szeged, Hungary

### **How to implement automata constructions in Maple?**

George T. Maroti, University of Pecs, Hungary

### **WIRIS, tools for web based learning environments (Moodle, Drupal, Joomla, Blogs)**

Ramon Eixarch, Maths for More, Barcelona, Spain

### **Modeling Towards Meaning of Functions**

Lilla Korenova, Slovakia, Comenius University, Bratislava

Jozef Hvorecky, Slovakia, Vysoka skola manazmentu, Bratislava

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## Proposed Programme

<b>11 July 2009</b>	
<b>Time</b>	<b>Session</b>
8:30-9:30	Registration
9:30-9:45	Welcome
9:45-10:30	Plenary I
10:30-11:00	Coffee break
11:00-12:30	Parallel session I
12:30-14:00	Lunch
14:00-15:30	Parallel session II
15:30-16:00	Coffee
16:00-16:45	Plenary II
17:00-18:00	Parallel session III
19:00-22:00	Welcome dinner
<b>12 July 2009</b>	
9:00-10:30	Parallel session IV
10:30-11:00	Coffee break
11:00-12:30	Parallel session V
12:30-14:00	Lunch
14:00-15:30	Parallel session VI
15:30-16:00	Coffee
16:00-16:45	Plenary III
17:00-18:30	Workshops/meetings
19:00-20:30	Dinner
<b>13 July 2009</b>	
9:00-10:30	Parallel session VII
10:30-11:00	Coffee break
11:00-11:45	Plenary IV
11:45-12:30	Closing
12:30-14:00	Lunch
15:00-	Excursion

## Fees

<b>Registration fee:</b>	180 Euro (before 15 June 2009) 200 Euro (after 15 June 2009)
<b>Student fee:</b>	150 Euro (before 15 June 2009) 170 Euro (after 15 June 2009)
<b>Accompanying person fee:</b>	140 Euro (before 15 June 2009) 160 Euro (after 15 June 2009)
<b>Excursion</b>	50 Euro

**Website:** <http://www.risc.uni-linz.ac.at/about/conferences/cadgme2009/>

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## What is covered by the registration fee for PARTICIPANTS?

- Conference materials
- Admission to Scientific Sessions
- Welcome reception
- All lunches and coffee breaks, dinner on July 12

## What is covered by the fee for ACCOMPANYING PERSONS?

- Welcome reception
- All lunches and coffee breaks, dinner on July 12

## Registration

Registration for the conference can be done electronically on the conference web page  
<http://www.risc.uni-linz.ac.at/about/conferences/cadgme2009/>

## Accommodation

### Hagenberg

- Hotel Sommerhaus in Hagenberg, 5 minutes walking distance from the conference venue, good quality rooms with Internet access. Booking from the [registration](#) page. Costs approx. 30 Euro per person per night including breakfast. Note that there is also a Hotel Sommerhaus in Linz, see below.

### Linz

- [Hotels in Linz](#), 20 km from the conference venue.
- Hotel [Sommerhaus](#) in Linz.

## Travel

**Directions and instructions can be found on the conference website**

## Scientific committee

**Burkhard Alpers** (Fachhochschule Aalen - University of Applied Sciences, Germany)  
**Teresa Assude** ( Université de Provence, France)  
**Paul Andrews** (University of Cambridge, UK)  
**Ralph-Johan Back** (Åbo Akademi University, Turku, Finland)  
**Bärbel Barzel** (Universität Duisburg-Essen, Germany)  
**Bruno Buchberger** (RISC, University of Linz, Austria)  
**Douglas Butler** (ICT Training Centre Oundle School), UK)  
**J. Orlando Freitas** (University of Madeira, Portugal)  
**Karl Fuchs** (University of Salzburg, Austria)  
**Erika Gyöngyösi** (University of Miskolc, Comenius College, Hungary)  
**Samer Habre** (Lebanese American University, Lebanon)  
**Stephen J. Hegedus** (University of Massachusetts, USA)  
**Kathleen Heid** (Pennsylvania State University, USA)  
**Markus Hohenwarter** (Florida Atlantic University, USA)  
**Djordje Kadijevich** (Mathematical Institute, Serbian Academy of Sciences and Arts, Serbia)  
**János Karsai** (University of Szeged, Hungary)  
**Carolyn Kieran** (Université du Québec á Montréal, Canada)  
**Vesna Kilibarda** (Indiana University Northwest, USA)

**Website:** <http://www.risc.uni-linz.ac.at/about/conferences/cadgme2009/>

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**Vlasta Kokol-Voljc** (University of Maribor, Slovenia)  
**Ulrich Kortenkamp** (University of Education Schwäbisch Gmünd, Germany)  
**Zoltán Kovács** (University of Debrecen - College of Nyíregyháza, Hungary)  
**Bernhard Kutzler** (Austrian Center for Didactics of Computer Algebra ,Austria)  
**Jean-baptiste Lagrange** (I.U.F.M. Reims and Didirem Université Paris VII, France)  
**Zsolt Lavicza** (University of Cambridge, UK)  
**Matija Lokar** (University of Ljubljana, Slovenia)  
**John Monaghan** (University of Leeds, UK)  
**Eric Muller** (Brock University, Canada)  
**Ildikó Perjési-Hámori** (University of Pécs, Hungary)  
**Werner Peschek** (Alpen - Adria Universität Klagenfurt, Austria)  
**Kenneth Ruthven** (University of Cambridge, UK)  
**Csaba Sárvári** (University of Pécs, Hungary)  
**Edith Schneider** (Alpen - Adria Universität Klagenfurt, Austria)  
**Lajos Szilassi** (University of Szeged, Hungary)  
**Denis Tanguay** (Université du Québec à Montréal, Canada)  
**Luc Trouche** (INRP (National Institut of Pedagogical Research), Lyon, France)  
**Éva Vásárhelyi** (Eotvos Lorand University, Hungary / University of Salzburg, Austria)  
**Rose Mary Zbiek** ( The Pennsylvania State University, USA)  
**Nurit Zehavi** (Weizmann Institute of Science, Israel)

## Sponsors



We encourage companies or organizations to sponsor the conference or events related to the conference. In exchange, we can offer publishing their logo on our website, in conference rooms, and around the conference sites.

## About RISC

RISC, the Research Institute for Symbolic Computation, is an institute at the JKU, the Johannes Kepler University Linz Austria. The institute was founded in the mid 1980's by Prof. Bruno Buchberger and has been devoted to developing and promoting the different areas and aspects of Symbolic Computation since then. Research groups at RISC specialize on automated theorem proving, algebraic geometry, algorithmic combinatorics, parallel computation, or formal methods to name but a few. Since its foundation, mathematical software for use in mathematics education at various levels has always played a key role at RISC. The institute consists of approximately 50 researchers and PhD-students from all over the world study at RISC in the frame of the PhD-program in Symbolic Computation. During summer 2009, as already in the years before, RISC will host a series of international conferences and workshops. The institute is located in the medieval Castle of Hagenberg 20km northeast of the university and can be reached by car in 15 minutes from the university on the highway.

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### GeoGebra Conference

Further details will be available on the following website:

[http://www.geogebra.org/en/wiki/index.php/GeoGebra\\_Conference\\_2009](http://www.geogebra.org/en/wiki/index.php/GeoGebra_Conference_2009)

Times	Tue, July 14	Wed, July 15
8:40 - 9:00	Welcome	Day Overview
9:00 - 9:40	<b>Keynote</b> Markus Hohenwarter	<b>Keynote</b> Zsolt Lavicza
9:40 - 10:00	Introduction of Working Groups	Working Group sharing/ideas
10:00 - 10:30	Coffee Break	Coffee Break
10:30 - 12:00	<b>Working Groups</b> Session 1	<b>Working Groups</b> Session 3
12:00 - 13:20	Lunch	Lunch
13:20 - 14:00	<b>Keynote</b> Thomas Recio	<b>Keynote</b> Damjan Kobal
14:00 - 15:30	<b>Working Groups</b> Session 2	<b>Working Groups</b> Session 4
15:30 - 16:00	Coffee Break	Coffee Break
16:00 - 16:40	<b>Working Groups</b> Day Summary Session	<b>Working Groups</b> Day Summary Session
16:40 - 18:00	<b>Reports</b> of Working Groups	<b>Reports of Working Groups</b> <b>Conclusions</b>

**Registration fee:** 110 Euro (before 15 June 2009)  
130 Euro (after 15 June 2009)

**Accompanying person fee:** 85 Euro (before 15 June 2009)  
100 Euro (after 15 June 2009)

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