

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

University of Pécs, Pollack Mihály Faculty of Engineering, Hungary, 20-23 June, 2007

## Second Announcement

### Introduction

In the recent years, we organized three special conferences on CAS-DGS (2002, 2003, 2004) at the University of Pécs to share our experiences about computer use in mathematics teaching and to learn from each other. In these conferences, we realized how little we know about the work of others and how useful the presentations and discussions are for our own development. We thought that the obvious subsequent step was to organize a more comprehensive conference if we wanted to learn what our colleagues do with regard to CAS-DGS in the neighbouring universities and countries. In addition, we imagined how wonderful it would be to listen to talks by leading CAS-DGS researchers from all over the world. Thus, we decided to organize a large-scale conference to create a forum for our Central- and Eastern- European colleagues, and for all interested academics from around the globe. Moreover, we hope that this conference will become a tradition for regular meetings in the future.

We are delighted that the Computer Algebra in Mathematics Education (CAME) group decided to organize their 5<sup>th</sup> Symposium in Pécs prior to CADGME on 19-20 June.

### Keynote speakers

**Bruno Buchberger** (RISC, University of Linz, Austria)  
**Vlasta Kokol-Voljc** (University Centre, School for Business and management, Novo Mesto, Slovenia)  
**Colette Laborde** (Université Joseph Fourier, France)  
**Kenneth Ruthven** (University of Cambridge, UK)  
**Edith Schneider** (University of Klagenfurt, Austria)  
**Luc Trouche** (INRP (National Institute of Pedagogical Research), Lyon, France)

### Scientific committee

**Burkhard Alpers** (Fachhochschule Aalen - University of Applied Sciences, Germany)  
**Teresa Assude** ( Université de Provence, France)  
**Paul Andrews** (University of Cambridge, UK)  
**Bärbel Barzel** (Universität Duisburg-Essen, Germany)  
**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** (Megatrend University & Mathematical Institute SANU, Serbia)  
**János Karsai** (University of Szeged, Hungary)  
**Carolyn Kieran** (Université du Québec à Montréal, Canada)  
**Vesna Kilibarda** (Indiana University Northwest, USA)  
**Vlasta Kokol-Voljc** (University Centre, School for Business and management, Novo Mesto, Slovenia)

**Website:** <http://matserv.pmmf.hu/cadgme>

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**Contact:** Csaba Sarvari, University of Pécs [sarvari@witch.pmmf.hu](mailto:sarvari@witch.pmmf.hu)  
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**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)  
**Matija Lokar** (University of Ljubljana, Slovenia)  
**John Monaghan** (University of Leeds, UK)  
**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 á 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 Instituite of Science, Israel)

## Call for papers

The aim of the conference is to establish a forum for academics in Central- and Eastern Europe in order to share their work with regard to CAS and DGS. Hence, in addition to keynote lectures, colleagues - everyone from everywhere - are kindly invited to participate on the conference and present their contributions.

## How to contribute

### **Contributed talks**

The talks will be given in parallel sessions; the length is 30 minutes including discussion. In addition, abstract can be submitted to the working groups listed below.

### **Posters**

Results can be presented on posters; the discussion will be given on the poster session.

### **Publication, proceedings**

#### **Abstracts**

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

#### **Refereed Papers**

Papers can be sent for publication to the scientific committee. They will be taken under the usual referee's process. Papers accepted will be published in two special issues of the journal Teaching Mathematics and Computer Science (<http://tmcs.math.klte.hu/>). The length is maximum 15 pages, the format is available on the conference web page. Papers can be submitted to the committee any time throughout the registration process and after the conference by 31 July, 2007. Papers will be sent to referees in early August 2007.

### **Submission deadlines**

Abstracts of posters (max 300 words)	31 March, 2007
Abstracts of contributed talks (max 300 words)	31 March, 2007
Refereed papers (maximum 15 pages)	31 July, 2007

**Website:** <http://matserv.pmmf.hu/cadgme>

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## 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 CAS-DGS environments
- CAS-DGS with Web-resources

## **Working groups**

### **Automated Reasoning and Mathematical Education**

Bruno Buchberger, RISC, University of Linz, Austria

### **Computer-aided Experiments and Visualization in Education**

János Karsai, University of Szeged, Hungary

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

Ulrich Kortenkamp, Pädagogische Hochschule Schwäbisch Gmünd, Germany

### **Research perspectives of the impact of dynamic mathematics on teaching and learning**

Stephen Hegedus, Luis Moreno, University of Massachusetts, Dartmouth, USA

### **Informatical Concepts and CAS**

Karl Josef Fuchs, University of Salzburg, Austria

### **Relating procedural and conceptual knowledge of mathematics through CAL**

Djordje Kadijevich, Megatrend University and Mathematical Institute SANU, Belgrade, Serbia

## **Workshops**

### ***Mathematica* in Education**

János Karsai, University of Szeged, Hungary

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## **GeoGebra in Secondary School Teaching**

Markus Hohenwarter, Florida Atlantic University, USA

## **Apprenti Geometre**

G. Noel and A. Vandenbruaene, Centre de Recherche sur l'Enseignement des Mathematiques (CREM), Belgium

## **Solving Problems with Geometry Expressions and CAS**

Philipp Todd, Saltire Software, USA (Oregon)

## **Exploring symmetries with secondary school students- an introduction to mathematical concepts**

Jelena Gusic, Milin Sipus, Petar Mladinic, University of Zagreb, Croatia

## **WIRIS, mathematics for education**

Ramon Eixarch, Maths for More, Barcelona, Spain

## **WebMathematics Interactive 2**

Zoltán Kovács, Bolyai Institute, University of Szeged, Hungary

## **MathDesktop and the LTM Project**

Phil Ramsden, Imperial College London, UK and Reinhard Simonovits  
Bundeshandelsakademie Grazbachgasse, Graz, Austria, Bernd Thaller  
Karl-Franzens University, Graz, Austria

## **An approach to teaching and leaning using program Graph**

Silva Kmetec, The National Education Institute of The Republic of Slovenia

## **Modeling with Sketchpad in the Teaching of Mathematics**

Homero Flores, Colegio de Ciencias y Humanidades, Universidad Nacional, México  
Cvetka Rojko, The National Education Institute, Slovenia

## **Using Computer Algebra / Technology for modelling and application projects in education**

Burkhard Alpers, University of Aalen, Germany

Detailed description of the proposed workshops can be downloaded from the conference website.

## **Proposed Programme**

**Place of the Conference: Pécs, Ifjúság út 6.**

<b>Wednesday 20 June 2007</b>	
<b>Time</b>	<b>Session</b>
17:45-18:00	Welcome and opening
18:00-18:45	Plenary talk I – Kenneth Rutven
18:45-19:30	Plenary talk II – Collette Laborde
19:30-21:00	Welcome reception

**Website:** <http://matserv.pmmf.hu/cadgme>

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<b>Thursday 21 June 2007</b>	
8:30-10:00	Parallel session I
10:00-10:30	Coffee break
10:30-12:00	Parallel session II
12:00-13:30	Lunch
13:30-14:15	Plenary talk III - Bruno Buchberger
14:30-16:00	Parallel session III
16:00-16:30	Coffee break
16:30-18:00	Parallel session IV
18:15-19:00	Plenary talk IV - Edith Schneider
19:00-21:00	Dinner
<b>Friday 22 June 2007</b>	
8:30-10:00	Parallel session V
10:00-10:30	Coffee break
10:30-12:00	Parallel session VI
12:00-13:30	Lunch
13:30-15:00	Parallel session VII
15:00-15:30	Coffee break
15:45-16:30	Plenary talk V - Luc Trouche
17:30-	Excursion
<b>Saturday 23 June 2007</b>	
9:00-10:30	Parallel session VIII
10:30-11:00	Coffee break
11:00-11:45	Plenary talk VI - Vlasta Kokol-Voljc
11:45-12	Conference closing
12:00-13:30	Lunch
15:00	Pecs World Heritage Site excursion

## Fees

<b>Registration fee:</b>	155 Euro (before 1 May 2007) 180 Euro (after 1 May 2007)
<b>Student fee:</b>	125 Euro (before 1 May 2007) 150 Euro (after 1 May 2007)
<b>Accompanied person fee:</b>	95 Euro (before 1 May 2007) 110 Euro (after 1 May 2007)
<b>Excursion (Friday):</b>	40 Euro

### **What is covered by the CADGME registration fee - PARTICIPANTS?**

- Conference materials
- the conference CD
- Admission to Scientific Sessions
- welcome reception
- all lunches and coffee breaks, dinner on Thursday

### **What is covered by the fee – ACCOMPANYING PERSONS?**

- welcome reception

**Website:** <http://matserv.pmmf.hu/cadgme>

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- all lunches, dinner on Thursday

## Registration

Registration for the conference can be done electronically on the conference web page

<http://matserv.pmmf.hu/cadgme>

**Please fill in the registration form as soon as possible! It will help us to gauge the number of participants for the conference.**

**Payment form is soon will be available on the Conference website**

## Important dates / schedule

### **CADGAME dates**

Abstract of contributed talks and posters	31 March, 2007
Acceptance notifications	15 April, 2007
Discounted registration	1 May, 2007
Final programme	31 May, 2007
End of pre-registration	10 June, 2007
Papers	31 July, 2007

### **CAME dates**

Paper submission (e-mailed to topic organizers)	31 March, 2007
Acceptance notifications	1 May, 2007
Discounted registration	1 May, 2007
Final programme	31 May, 2007
End of pre-registration	10 June, 2007

## CAME

Registration for the CAME-5 Symposium can be done in the Registration menu in this website.

You should also choose your preference of topic group and describe your research interest.

Paper Submissions should be sent directly to the theme organizers:

**Theme 1:** The influence of CAS on the development of procedural and structural knowledge  
Roger Brown [rogergbrown@mac.com](mailto:rogergbrown@mac.com)

**Theme 2:** What is happening with CAS in classrooms around the world  
Robert McCollum [RMCCOLLUM@glenbrook.k12.il.us](mailto:RMCCOLLUM@glenbrook.k12.il.us)  
Natalie Jakucyn [njakucyn@uchicago.edu](mailto:njakucyn@uchicago.edu)

**Theme 3:** Computer algebra and Intelligent Tutoring Systems

Nurit Zehavi [Nurit.Zehavi@weizmann.ac.il](mailto:Nurit.Zehavi@weizmann.ac.il)

John Monaghan [J.D.Monaghan@education.leeds.ac.uk](mailto:J.D.Monaghan@education.leeds.ac.uk)

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**Registration fee:** 95 Euro (before 1 May 2007)  
110 Euro (after 1 May 2007)

## Accommodation

Accommodation can be reserved via e-mail and phone with the Hotel representatives. Hotels are holding a number of rooms for conference participants until 1 May. Contact information is below:

### **Hotel Hunyor** (50 rooms reserved)

E-mail: [postmaster@ptehunyor.axelero.net](mailto:postmaster@ptehunyor.axelero.net) Telephone: 36 72 512 640

#### **Prices:**

Single room: 6400HUF / 26Euro  
Double room: 8200HUF / 33Euro

### **Hotel Makartanya** (21 rooms reserved)

E-mail: [makartanya@dravanet.hu](mailto:makartanya@dravanet.hu) Telephone: 36 72 22-44-00

Website: <http://www.makartanya.hu/gbframeset.html>

#### **Prices:**

Single room: 12000 HUF ; 13500 HUF / 48 Euro /54 Euro  
Double room: 7900 HUF; 8900 HUF / person/night

### **Amstel Panzio** (19 rooms reserved)

E-mail: [amstelhotel210@hotmail.com](mailto:amstelhotel210@hotmail.com) ;Telephone: 36 72 215 680

Website: [http://www.szinbadpanzio.hu/amstel/eng/start\\_eng.html](http://www.szinbadpanzio.hu/amstel/eng/start_eng.html)

#### **Prices:**

Single room: 8490 HUF /34 Euro  
Double room: 10 990 HUF //44 Euro/night/room  
Triple room 13 490 HUF /54 Euro/ night/room

### **Szinbad Panzio** (06 18-06 21: 27 rooms; 06 21-24 6 double rooms reserved)

E-mail: [szinbadhotel210@hotmail.com](mailto:szinbadhotel210@hotmail.com); Telephone:36 72 221 110

Website: [http://www.szinbadpanzio.hu/szinbad/eng/start\\_eng.html](http://www.szinbadpanzio.hu/szinbad/eng/start_eng.html)

#### **Prices:**

Single room: 8490 HUF /34 Euro  
Double room: 10 990 HUF /44 Euro / night/room  
Triple room 13 490 HUF /54 Euro/ night/room

### **Student Hostel**

E-mail: [robert.schmidt@pannonlargo.hu](mailto:robert.schmidt@pannonlargo.hu)

#### **Prices:**

Dormitory style room 10 Euro/person

**Website:** <http://matserv.pmmf.hu/cadgme>

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**Aranyhajó Fogadó** (6 standard+6 de Luxe rooms reserved (only 18-21 Jun))

Telephone:36 72 210 685

Website: [www.hotels.hu/aranyhajo\\_pecs](http://www.hotels.hu/aranyhajo_pecs)

**Additional accomodation**

<http://hungary.pecshotels.com/>

## Travel

### **By air:**

The closest airport to Pecs is Budapest- Ferihegy

### **Links to low cost airlines flying to Budapest:**

<http://www.airberlin.com>

<http://www.easyjet.com>

<http://www.germanwings.com>

<http://www.skyeurope.com>

<http://www.flysnowflake.com>

<http://www.wizzair.com>

<http://www.smartwings.com>

### **Hungarian Airlines - Malev:**

<http://www.malev.hu>

### **Budapest Airport**

<http://www.bud.hu/english>

### **From the Airport to Pecs**

### **By Budapest-Pecs shuttle bus:**

The closest airport to Pecs is Budapest- Ferihegy. We recommend to arrange transportation with Mistral Minibuses. They offer 35 Euro door-to-door service from Ferihegy Airport to the conference site. Also, discounts are available for groups. You should book your travel four days in advance on the website of Mistral Minibus:

<http://www.mistral-minibus.hu/english.php>

### **Airport Minibus to Budapest train stations:**

[http://www.bud.hu/english/transport/airport\\_shuttle](http://www.bud.hu/english/transport/airport_shuttle)

### **By train:**

Hungarian Rail - MAV timetable

<http://www.elvira.hu>

There is a frequent train service from Budapest to Pecs and a train connection has been recently established from Vienna.

**Website:** <http://matserv.pmmf.hu/cadgme>

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## By bus:

Bus schedule: <http://www.volan.hu/>

## Within Pecs:

The local bus service within Pecs is quite good. Ticket prices are around 0.75 Euros  
Also, we will make arrangements with local taxi companies for transportation from the train station.

## By car:

Pecs can be reached from Budapest through Route M6.

## Sponsors

The conference is sponsored by the

**University of Pecs**



**The European Cultural Capital 2010 Society**



**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 Pecs and the University

Pécs lies on the southern slope of Mecsek Mountains. Its location contributes to the view that Pécs is Hungary's 'Mediterranean' town. A large number of festivals cultural events take place in its historic town centre (established more than 2000 years ago by the Romans) year round. The University was first established in 1367 as the first university in Hungary. Then after a stormy history university departments were joined in 2000 and made the University of Pécs the largest university with regard to student numbers in Hungary.

For more information about Pécs and the University:

<http://english.pte.hu/htmls/index.php>

**Website:** <http://matserv.pmmf.hu/cadgme>

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