



The I2GEO 2010 Conference

02.-03.07.2010 • Hluboká nad Vltavou, Czech Republic

We are announcing I2GEO 2010 in Hluboká nad Vltavou (Czech Republic), a conference that will enable the Interactive Geometry community to gather, share and enrich content for mathematics education. We invite all people interested in interactive (or dynamic) geometry, teachers, researchers and technology providers, to join us for this exciting event.

Immediately before I2GEO 2010 the Conference on Computer Algebra and Dynamic Geometry in Mathematics Education CADGME 2010 will take place in the same location. More information about CADGME 2010 is available at <http://www.pf.jcu.cz/cadgme2010>.

An online version of this CFP is available at <http://cermat.org/i2geo2010>.

A conference organized by the Intergeo Project

The Intergeo Project is a EU co-financed project that aims to make digital content for mathematics teaching in Europe more accessible, usable and exploitable. The project is built on three main pillars: (1) Enhancing the access to interactive-geometry-based mathematical content, (2) enabling the exchange of content by taking down technical and legal hurdles, and (3) assessing the educational value of content by quality testing.

A declared goal of the Intergeo Project was to enable the mathematics education community – teachers, researchers and learners – to take over the project and to self-sustain it. This conference and the associated proceedings are one building block of this goal.



Conference Topics

The conference will be arranged around three important themes of Interoperable Interactive Geometry: Structural Aspects, Technology, and Quality Assessment. This includes, but is not restricted to, contributions to the following fields. All contributions are eligible for the Best Paper Award. Each of the sections will include a keynote presentation by a member of the Intergeo project.

Structural Aspects

Keynote: Paul Libbrecht & Colette Laborde

- Ontologies for Mathematics Education
- Formalization of Curricula
- Cross-Cultural Aspects of Mathematics Education
- Classification by Topics vs. Classification by Competencies
- Searching and Organizing Mathematical Content
- Metadata for Mathematical Resources and Activities
- Knowledge Management in Mathematics Education

Technology

Keynote: Yves Kreis & Ulrich Kortenkamp

- Formal Descriptions of Constructions, Exercises and other Digital Content in Mathematics
- Data Exchange in Mathematics and Mathematics Education
- Comparison of Interactive Geometry Tools
- Mathematics Education and Social Networks/Web 2.0
- Integration of Digital Content in the Classroom
- Innovative Uses of ICT in Teaching Mathematics

Quality Assessment

Keynote: Christian Mercat & Tomas Recio

- Quality Criteria for Interactive Mathematics Content
- Standards for Quality Assessment of Educational Content
- Best Practices and Case Studies on Using Interactive Geometry in the Classroom
- Identification of Critical Features of Electronic Content that Create Added Value
- Teacher Education and Life-Long Learning
- Educational Research based on the Quality Framework of Intergeo



Content submissions

As a fourth topic we also invite contributions to the Intergeo platform <http://i2geo.net>. All interactive content submitted can be submitted as a **Content Contribution**. Each contribution should be flagged with the keyword *i2geo2010*. All content contributed for the conference will be exhibited at Hluboká and is eligible for the **Best Content Award**.

Conference Program

The program includes

- keynotes on each topic
- 30 minutes presentations on one of the topics of the conference
- workshops about interactive geometry tools, the design and use of digital content, assessing the quality of content, teacher preparation to the use of digital content
- Local User Meetings of the i2geo platforms, not only for users of the i2geo platform but also for people interested in becoming a future user

The final conference program has not been determined yet. A preliminary structure will be available in January 2010.

Presentations

Contributions to topics of the conference are invited to submission. The first submission is an abstract of about 300 words that should mention the topic of the conference the presentation is related to and the name and affiliation of the author(s). All accepted contributions will give rise to 30 minutes oral presentations and to a full paper of 6 pages.

I2Geo Local User Meetings and Workshops

Within the conference program we will also offer an opportunity to meet and work together in so-called Local User Meetings. Expert members from the consortium or associate partners will help to explore and learn how to use the i2geo platform.

Workshops are also welcome. If you want to provide a workshop yourself, please send a short abstract (500 words) to the conference office, including your prerequisites and technical requirements.

Social Event

You will be able to attend the excursion of CADGME 2010 (see <http://www.pf.jcu.cz/cadgme2010>) on July 1st, 2010, starting at 15:00. We will also organize a conference dinner in the evening of July 2.



General Assembly

We will organize a general assembly of the Intergeo partners (including associate partners) during the conference. The exact date and time will be published in January 2010.

Committees

I2GEO 2010 is organized and supported by the Intergeo Consortium and its associate partners.

Organizing Committee

- **Ulrich Kortenkamp**, PH Karlsruhe / CERMAT, Germany
- **Pavel Pech**, University of South Bohemia, Czech Republic
- **Christian Dohrmann**, PH Schwäbisch Gmünd / CERMAT, Germany
- **Roman Hašek**, University of South Bohemia, Czech Republic

Program Committee

- Colette Laborde, IMAG Grenoble, France (Chair)
- Ulrich Kortenkamp, PH Karlsruhe / CERMAT, Germany (Chair)
- Miguel Abanades, Universidad Complutense, Spain
- Peter Baptist, University of Bayreuth, Germany
- Caroline Bardini, University of Montpellier 2, France
- Francisco Botana, Universidad Vigo, Spain
- Arjeh Cohen, TU Eindhoven, Netherlands
- Ramon Eixarch, Maths for More, Barcelona, Spain
- Jesus Escribano, Universidad Complutense, Spain
- Roman Hašek, University of South Bohemia, Czech Republic
- Maxim Hendriks, TU Eindhoven, Netherlands
- Jean-Marie Laborde, Cabrilog S.A.S., France
- Yves Kreis, Université du Luxembourg, Luxembourg
- Paul Libbrecht, DFKI Saarbrücken, Germany
- Daniel Marques, Maths for More, Barcelona, Spain
- Christian Mercat, University of Montpellier 2, France
- Pavel Pech, University of South Bohemia, Czech Republic
- Tomas Recio, Universidad Cantabria, Spain
- Volker Ulm, Universität Augsburg, Germany
- Alfred Wassermann, University of Bayreuth, Germany



Conference Venue

The I2GEO 2010 conference will take place in **Hluboká nad Vltavou**, a beautiful city near České Budejovice (Budweis) in the Czech Republic, about 150 km south of Prague, 100 km north of Linz, Austria, and 320 km east of Nuremberg, Germany. The conference will be hosted by the [Hotel Parkhotel in Hluboká nad Vltavou](#).

Conference participants can book rooms at the [Parkhotel](#) at a reduced conference rate of approximately 40EUR/1000 CZK for a single room, 30EUR/750 CZK for a double room, including breakfast. The rooms are of good quality and have Internet access. Each participant is expected to reserve his/her accommodation directly by email to the hotel office address: recepce@parkhotel-hluboka.cz. Please mention that you are a participant of CADGME or I2GEO2010 to get the reduced rate. The preliminary reservation is confirmed by the hotel if done before May 31st, after which date the hotel cannot guarantee accommodation.

Conference Proceedings

Online Proceedings

The proceedings of the conference will be available online. All papers will be peer-reviewed.

Journal Issue (ZDM)

In addition to the online proceedings of the conference there will also be a special issue of the **ZDM – The International Journal of Mathematics Education**, edited by Colette Laborde, IMAG, and Ulrich Kortenkamp, PH Karlsruhe/CERMAT. This ZDM issue will contain selected high-quality papers from the conference and invited papers by internationally known experts in the field. All papers will be refereed according to the rules of ZDM.

Conference Dates

The Conference will take place from **July 2–3, 2010**, immediately after CADGME 2010 (<http://home.pf.jcu.cz/~cadgme2010/>), in Hluboká nad Vltavou, Czech Republic.

- **December 15, 2009** – First Announcement
- **February 17, 2010** – Second Announcement
- **May 31, 2010** – Discounted registration
- **June 1st, 2010** – End of pre-registration



Submission Deadlines

Paper and workshop acceptance will be based on the submitted abstracts. In order to participate in the best paper award, a full version of the paper has to be submitted **before** the conference. Final versions that may include modifications based on conference feedback are due six weeks after the conference.

- **March 31, 2010** – Abstract and Workshop proposal submissions
- **May 31, 2010** – Acceptance notifications
- **June 15, 2010** – Final programme
- **June 18, 2010** – Submission of full papers
- **June 18, 2010** – Last submission date for Best Content Award
- **September 15, 2010** – Submission of final papers

Content for the Best Content Award has to be submitted before the conference. You may submit content for the Best Content Award without participating in the conference. All submissions for the content award should be done as regular content submissions on the platform <http://i2geo.net> and should include *i2geo2010* as a keyword.

Registration for the Conference

Registration will be handled on the CADGME website at <http://www.pf.jcu.cz/cadgme2010/index.php?show=registration/registration-system>.

Pricing:

- Early registration (until May 31, 2010): 110 €
- Regular registration: 130 €
- Excursion on July 1st in conjunction with CADGME 2010: 50 €
- Accompanying person (until May 31, 2010): 90 €
- Accompanying person (regular): 110 €

Registration fee includes the conference dinner.

Awards

There will be both a **Best Paper Award** and a **Best Content Award**. Winners will receive a certificate and yet to be announced prizes (see Sponsors below).

All decisions are made by the Program Committee and are final. Awards may be split or withdrawn without further notice.



Sponsors

Currently, the following companies and organisations are sponsoring I2GEO 2010. We are still looking for further sponsors, in particular for prizes for the Best Paper Award and Best Content Award.

- European Union, eContentplus program
- CERMAT Karlsruhe
- University of South Bohemia
- Union of Czech Mathematicians and Physicists

About the Intergeo Project

Intergeo is built on three main pillars: (1) Enhancing the access to interactive-geometry-based mathematical content, (2) enabling the exchange of content by taking down technical and legal hurdles, and (3) assessing the educational value of content by quality testing.

(1) Each of these pillars needs expertise from mathematics education, mathematics, and computer science. Access to the existing vast amount of activities, learning paths, exercises, examples collections, etc. can only be easy if the content is properly indexed and tagged. For that, the project created an ontology of mathematical topics and skills (the GeoSkills ontology) that can be used for the classification and organization of interactive material for mathematics teaching and learning. Also, search tools and algorithms have been implemented based on this ontology, that are now available on a centralized platform at <http://i2geo.net>. Furthermore, curricula of several countries have been encoded, such that the Intergeo platform can be used for cross-curriculum search.

(2) The exchange of content is only possible if teachers and others can use the material they find with their current hardware and software setup. Intergeo provides the community with a data exchange format that is being adapted by all major commercial and open-source software producers. At the same time, all resources on i2geo.net come with reuse-friendly licenses, like the Creative Commons license. Therefore, users can adapt or translate the resources they want to use in their classes to their own needs.

(3) Finally, not all content is equally suited for each classroom situation. Among others, it depends on the experience of the teachers (and students) with ICT enhanced teaching, the declared goals of the curriculum and the technical prerequisites. Also, even if an activity is feasible for teaching, its educational value might still be debatable. Those who want to use computers in teaching depend on the experience of others, and we provide everybody with an easy-to-use but still detailed way to provide feedback about each resource. The quality assessment framework developed in the project is used for evaluating resources, and it is also a good starting point for research in ICT-supported teaching of mathematics and teacher education.