

**12th International Congress on Mathematical Education  
(ICME-12), to be held  
JULY 8-15, 2012, Coex, Seoul, Korea<sup>i</sup>**

**The organizing team of Topic Study *Topic Study Group 3<sup>ii, iii</sup>*  
*Activities and Programs for Gifted Students***

***Call for papers***

**The aim of TSG 3 at ICME-12 is**

*to gather educational researchers, research mathematicians, mathematics teachers, teacher educators, designers and other congress participants for the international exchange of ideas related to identifying and nourishing mathematically gifted students.*

The focal topics will include but not be bounded to:

- Theoretical models of giftedness and the relationship between creativity and giftedness;
- Empirical research that will contribute to the development of our understanding in the field. We plan to discuss
  - effective research methodologies and research innovations (e.g., brain research) in the field of mathematical giftedness;
  - the findings of qualitative and quantitative studies related to high mathematical promise, its realization, and the relationship between mathematical creativity and mathematical talent.
- Profiles of the gifted child: their range of interests, ambitions and motivations, social behaviour, how and at what age their giftedness is discovered or developed.
- Instructional design directed at teaching the gifted as well as development of appropriate didactical principles. The discussions will be focused on:
  - the ways that lead students to discover and realize their mathematical talents;
  - the ways of developing mathematical innovation at high level;
  - mathematical activities that are challenging, free of routine, inquiry-based, and rich in authentic mathematical problem solving;
  - types of mathematics suitable for challenging gifted students;
  - creation of mathematics challenges;
  - out-of-school ways of fostering giftedness, e.g., mathematics clubs, homeschooling, mathematical shows and competitions.
- Teacher education aimed at mathematics teaching that encourages mathematical promise and promotes mathematical talents, including:
  - issues of the psychology of teaching talented students;
  - socio-cultural and affective characteristics of the mathematically gifted;
  - types of mathematics and pedagogy suitable for educating teachers of gifted.

### To join the group:

The organizing team welcomes significant contributions related to the topics outlined here and to other related issue. Participants are requested to submit a paper to the two team chairs no later than November 30, 2011 via e-mails. The length of contributions should be between 2000 and 3000 words in length

### Important deadlines:

November 30, 2011	Proposal submission
January 15, 2012	Notification of acceptance
April 10, 2012	Submission of Final Draft

**The schedule** for the work of the study group at ICME-12 will be announced in the near future.

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### Endnotes

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- i For general congress information <http://www.icme12.org/>  
Information about the group will be published soon at the conference cite
  - ii The work of our group is related to the work of *International Group for Mathematical Creativity and Giftedness* <http://igmcg.org/>;  
<http://www.mathunion.org/icmi>
  - iii The work of our group is a continuation of
    - a) TSG4 at ICME 10 in Copenhagen, Denmark <http://www.icme10.dk/>
    - b) TSG6 at ICME-11, in Monterrey, México <http://tsg.icme11.org/tsg/show/7>
    - c) ICMI Study 16, *Challenging Mathematics in and beyond the Classroom*  
(<http://www.amt.canberra.edu.au/icmis16.html>) Chaired by E. Barbeau, P. Taylor