

*VI Congress of the World Federation of National Mathematics Competitions,
Riga, Latvia, July 26-30, 2010*

Monday

- 1000 - **Grand Opening of the Congress**
1100
- 1100 - **Address by WFNMC President Maria Falk de Losada
(Colombia)**
1200
*Expanding the horizons of challenging mathematics:
students, teachers and schools*
- 1210 - **Section 3A: Competitions around the World**
1410
- Ali Rejali (Iran):** Statistics Competitions in Iran
**Husain Al Attas and Khaled M. Furati (Saudi
Arabia):** KFUPM Math Olympiad in Saudi Arabia:
Impact and Challenges
Nazar Agakhanov and Daud Mamiy (Russia): South
Mathematical Tournament
Mohammad Hossein Pourkazemi (Iran): The Iranian
International Scientific Mathematics Olympiad
- 1210 - **Section 3B: Competitions around the World**
1410
- Kevin McAvaney (Australia):** Australian Intermediate
Mathematics Olympiad
Benjamin A. Burton (Australia): A report on the 2010
Informatics Olympiad workshop
**Alexander Domoshnitsky, Vadim Bugaenko and
Roman Yavich (Israel):** International Internet
Mathematical Competitions for University Students
Vadim Bugaenko (Israel): Problem selection for the
International Mathematics Internet Olympiad
- 1410-1510 Lunch
- 1515 - **Plenary I: Andris Ambainis (Latvia)**
1615
*Some Olympiad Problems in Combinatorics and their
Generalizations*
- 1630 - **Workshop A: Howard Groves, Dean Bunnell, James,
1815 Welham and David Crawford (UK):** Turning Routine
Problems into Interesting Problems.
- 1630 - **Workshop B: Kevin McAvaney (Australia):** Challenge
1815 Problems for Middle School

Tuesday

1000 - **Section 2A: Creating Problems and Problem Solving**
1130

Francisco Bellot-Rosado (Spain): Some Problems from Training of a Junior Olympiad

Benjamin A. Burton (Australia): Problem setting in mathematics and informatics: Weaving proof into Programming

Robert Geretschläger (Austria): Folding Questions – A Paper about Problems about Paper

1000 - **Section 2B: Creating Problems and Problem Solving**
1130

Kiril Bankov (Bulgaria): Partition of a Polygon into Triangles

Iliana Tsvetkova (Bulgaria): Applications of Semi-Invariants in Solving Math Competition Problems

Romualdas Kašuba (Lithuania): Adaptation of Problems and Solutions

1145 - **Section 1: Building Bridges between Research and**
1345 **Competitions Problems**

Borislav Lazarov (Bulgaria): Monster Problems Design and Sense-of-Mathematics Building

Nevena Koleva & Jordan Tabov (Bulgaria): On the Fermat Problem

Georges Lion (France) and Maurice Starck (New Caledonia): Discrete groups of isometries of the plane

Andrejs Cibulis (Latvia): Some Bridges among Contest, Research and Unsolved Problems

1400 - Lunch

1500

1515 - **Plenary II: Alexander Soifer (USA)**

1615

Between the Line and the Plane:

Chromatic Étude in 6 Movements

1630 - **Workshop C: Romualdas Kašuba (Lithuania):**

1815 Converting Problem to an Art Event and Vice Versa

1630 - **Workshop D: Vincent J. Matsko (USA):** Grammars,

1815 Regular Expressions, and Finite-State Automata

1830 Dinner

Thursday

1000 - **Section 4A: Work with Students and Teachers**

1130

- Ildar S. Safuanov and Valery A. Gusev (Russia):**
Fostering thinking abilities of pupils for mathematical competitions
- Jaroslav Švrcek and Josef Molnár (Czech Republic):**
Support of the work with mathematically gifted pupils in the Czech Republic using of grants of European Social Funds
- Vincent J. Matsko (USA):** Having Students Write Original Problems
- 1000 - **Section 4B: Work with Students and Teachers**
1130
- David Kennedy (Australia):** Preparing Upper Primary and Lower Secondary students for Mathematical Problem Solving Competitions.
- Maksim Ivanov (Estonia):** Number 2010 theory problems for 6-8 grade students
- Cheng Chun Chor-Litwin (Hong Kong):** Solving the problem of number of zero in the expansion of $n!$
- 1145 - **Section 4A: Work with Students and Teachers**
1315
- Oleksiy Yevdokimov (Australia):** Links between problems and their role in students' preparation to mathematical contests
- Sergey Dorichenko (Russia):** Math classes in Moscow schools no.57 and 179
- Nikolay Konstantinov (Russia):** Math classes in Russia
- 1145 - **Section 4B: Work with Students and Teachers**
1315
- Quan K. Lam and Zhou Guozhen (China):** The state of national math competitions in China - the country that produced the most number of gold medal winners in IMO - and the future of international math competitions.
- Luis Gómez Sánchez A. (Venezuela):** Another perspective on a famous problem IMO 1988: the equation $(x^2+y^2)/(xy+1)=n^2$
- Petar S. Kenderov (Bulgaria):** Higher Ability Students and Inquiry Based Learning in Bulgaria – the role of European Projects InnoMathEd and Fibonacci
- 1330 - **Talk & Discussion: Sergey Dorichenko (Russia):**
1415
- Selected Problems from the Tournament of Towns*
- 1530 - **Plenary III: Matti Lehtinen (Finland)**
1630
- Eyewitnessing the IMO - Decades of Stability and Change*
- 1645 - **Talk & Discussion: Peter Taylor (Australia):**

1800

Friday

1215 - **Plenary IV: Andris Buikis (Latvia)**
1315

The Application of Mathematics as the Source of New Ideas

General information

The **6th Congress of World Federation of National Mathematics Competitions (WFNMC)** will be held in **Riga, Latvia, from 25th July, 2010 (arrival) till 31st July, 2010 (departure)**.

The work of the Congress will be supervised by Prof. Maria Falk de Losada, the President of WFNMC, and International Program Committee (co-chairs Prof. Alexander Soifer, University of Colorado, and Prof. Agnis Andžāns, University of Latvia).

The congress will be organized at University of Latvia, in its central building (Rainis boul. 19) and in the campus of Faculty of Physics and Mathematics (Zelju Street 8).

The work of the congress will concentrate around 4 central topics:

1. A bridge between research mathematics / theoretical computer science and competitions.
2. Competition problems and methods of their solution.
3. Types and organization of the competitions.
4. Preparation of students and teachers.

5. Participants

Name, Surname	Organisation	Country
Maurice Starck	Australian Mathematics Trust	New-Caledonia
BEN BURTON	AUSTRALIAN MATHEMATICS TRUST	AUSTRALIA
Jordan Tabov	Institute of Mathematics and Informatics	Bulgaria
Kiril Bankov	University of Sofia	Bulgaria
Ildar Safuanov	Moscow State City Pedagogical University	Russian Federation
Jaroslav Švrček	Palacký University of Olomouc	Czech Republic
Valery Gusev	Moscow Pedagogical State University	Russian Federation
Josef Molnár	Palacký University of Olomouc	Czech Republic
Vadim Bugaenko	Ariel University Center of Samaria	Israel
Alexander Domoshnitsky	Ariel University Center	Israel
Kašuba Romualdas	Vilnius University	Lithuania
Dr Kevin McAvaney	Australian Mathematics Trust	Australia
Andrei Storozhev	Australian Mathematics Trust	Australia

Iliana Tsvetkova	Sofia High School of Mathematics	Bulgaria
Roman Yavich	Ariel University Center of Samaria	Israel
Khaled Furati	King Fahd University of Petroleum & Minerals	Saudi Arabia
Husàin Al Attas	King Fahd University of Petroleum & Minerals	Saudi Arabia
Alexander Soifer	University of Colorado	USA
Valentina Dagiene	Vilnius University	Lithuania
Robert Geretschlaeger	BRG Kepler, Graz	Austria
Andrejs Cibulis	University of Latvia	Latvia
Mohammad Hossein Pourkazemi	Shahid Beheshti University	Iran
Dean Bunnell	UK Maths Trust	England
Howard Groves	UK Mathematics Trust	United Kingdom
Peter Taylor	Australian Mathematics Trust	Australia
James Welham	UKMT	United Kingdom
Francisco Bellot-Rosado	WFNMC	Spain
Maksim Ivanov	University of Tartu	Estonia
Matti Lehtinen	University of Helsinki	Finland
David Crawford	UKMT	United Kingdom
David Kennedy	Australian Mathematics Trust	Australia
Dr Oleksiy Yevdokimov	Australian Mathematics Trust	Australia
Dr Ali Rejali	Isfahan University of Technology	Iran
GOMEZ-SANCHEZ Luis	UNIVERSIDAD DE ORIENTE	VENEZUELA
Vince Matsko	Illinois Mathematics and Science Academy	USA
Quan Lam	ARML/University of California	USA
Guozhen Zhou	Hope Cup	China
Chun Chor Litwin CHENG	HK Institute of Education	Hong Kong
Steven Blasberg	West Valley College	USA
VICTOR OLUTAYO OLAYENI	STUDENT-UNIVERSITY OF IBADAN	NIGERIA
Surya Wijaya	Surya Institute	Indonesia
Ian VanderBurgh	Centre for Education in Mathematics and Computing	Canada
GOKYALYA SARAH	BOMBO SCHOOL OF SCIENCES	UGANDA
Borislav Lazarov	Institute of Mathematics and Informatics	BULGARIA
Mike Eden	Centre for Education in Mathematics and Computing	Canada
Jen Nissen	Centre for Education in Mathematics and Computing	Canada

AKINBULU OLU	REMO POLYTECHNIC NIGERIA	NIGERIA
KATEREGGA GEOFFREY GREGOR	KAMPALA INSTITUTE OF TECHNOLOGY	UGANDA
Eelts Abel	University of Tartu	Estonia
Mati Abel	University of Tartu	Estonia
Daud Mamiy	Adyghe State University	Russia
ADESOLA ASENUGA	ONDO STATE UNIVERSITY	NIGERIA
IBIDAPO GODSPOWER ONI	ONDO STATE UNIVERSITY	NIGERIA
Martins Opmanis	IMCS UL	Latvia
Matjaž Željko	DMFA Slovenije	Slovenia
Petar Kenderov	Institute of Mathematics and Informatics	Bulgaria
Steve OLUWANIYI	National Mathematical Centre, Abuja	NIGERIA
Samson ALE	National Mathematical Centre, Abuja	NIGERIA
Rahila JOCK	National Mathematical Centre, Abuja	NIGERIA
Sergey Dorichenko	Tournament of Towns	Russia
Alexander Unger	Mathematikwettbewerb Känguru e.V. / Humboldt-Universität zu Berlin	Germany
Rihards Opmanis	IMCS UL	Latvia