



**15th Scientific-Professional Colloquium on
Geometry and Graphics
TUHELJSKE TOPLICE
September 4–8, 2011**

ORGANIZER:

Croatian Society for Geometry and Graphics

PROGRAM

COMMITTEE:

Maja Andrić, Jelena Beban-Brkić, Sonja Gorjanc (vice-president),
Ema Jurkin (president), Mirela Katić-Žlepalo, Nikolina Kovačević,
Vlasta Szirovicza, Nikoleta Sudeta, Marija Šimić Horvath

CO-ORGANIZERS::

Faculty of Civil Engineering, University of Zagreb
Foundation of Croatian Academy of Sciences and Arts
Ministry of Science, Education and Sports of the Republic of Croatia

SPONSOR:

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SUNDAY, SEPTEMBER 4

17.00–19.00 Registration

19.00–21.00 DINNER

MONDAY, SEPTEMBER 5

7.00– 9.00 BREAKFAST

Morning session (Chairperson: E. Jurkin)

9.00– 9.10 OPENING

9.10– 9.55 Plenary lecture
M. L. Husty: *Kinematics and algebraic geometry*

9.55–10.20 COFFEE BREAK

10.20–10.40 F. Manhart: *On the geometry of B-scrolls*

10.40–11.00 H.-P. Schröcker: *Remarks on the local geometry of a discrete Bäcklund configuration*

11.00–11.10 PAUSE

11.10–11.30 M. Triplat Horvat: *Application of Bošković geometric adjustment method on five meridian degrees*

11.30–11.50 G. Glaeser: *Continental drift and oceanic conveyor belt - a geometrical pleading for the globe*

11.50–12.10 G. Wallner: *The backbone of the Earth*

12.30–14.30 LUNCH BREAK



Afternoon session (Chairperson: J. Beban-Brkić)

- 14.30– 15.15 Plenary lecture
E. Molnár: *On János Bolyai and His Appendix, “From nothing I have created a new different world”*
- 15.15–15.40 COFFEE BREAK
- 15.40–16.00 A. Alkhaldi: *The parabola in universal hyperbolic geometry*
- 16.00–16.20 Z. Kolar-Begović: *Steiner’s ellipses of the triangle in an isotropic plane*
- 16.20–16.40 I. Talata: *Covering the unit d -cube by n convex bodies of minimal k -energy*
- 16.40–17.00 A. Joós: *Covering the unit square by some rectangles*
- 17.00–17.10 PAUSE
- 17.10–17.30 A. Bölcskei: *Interlaced motifs by one single strip or chain*
- 17.30–17.50 T. F. Farkas: *Creative dimensions III*
- 17.50–18.20 EXHIBITION
T. F. Farkas: *Creative dimensions III*
- POSTER SESSION
E. Jurkin: *Entirely circular quartics in the pseudo-Euclidean plane*
G. Wallner: *The backbone of the Earth*
- 19.00–21.00 DINNER



TUESDAY, SEPTEMBER 6

7.00– 8.30 BREAKFAST

8.30–19.00 EXCURSION - Tour through Hrvatsko Zagorje

19.00–21.00 DINNER

WEDNESDAY, SEPTEMBER 7

7.00– 9.00 BREAKFAST

Morning session (Chairperson: V. Szivoczka)

9.00– 9.45 Plenary lecture

L. Pletenac: *E-learning in constructive geometry and graphics at Faculty of Civil Engineering in Rijeka*

9.45–10.10 COFFEE BREAK

10.10–10.30 Cs. Sörös: *Comparative survey using Mental Cutting Test*

10.30–10.50 D. Kušar: *Geometry and architecture of triangles*

10.50–11.10 M. Szilvási-Nagy: *B-spline surface patches on triangle meshes*

11.10–11.20 PAUSE

11.20–11.40 M. Dragović: *The general case of main axis for 2^{nd} order cone*

11.40–12.00 L. Vörös: *Projections of Projections with Common and Parallel Picture Planes*

12.00–12.20 S. Mick: *Kiepert conics in Cayley-Klein geometries revisited*

12.30–14.30 LUNCH BREAK



Afternoon session (Chairperson: S. Gorjanc)

- 14.30–15.15 Plenary lecture
B. Divjak: *Support for learning and teaching mathematics in the era of massification of higher education*
- 15.15–15.35 COFFEE BREAK
- 15.35–15.55 I. Marcijuš: *On the use of digital tools in perspective images generation*
- 15.55–16.15 P. Žugec: *Pedagogical role of mathematical proof for students at non-mathematical faculties*
- 16.15–16.45 N. Kovačević: *Geometry at the technical faculties in Croatia*
- 16.45–16.55 PAUSE
- 16.55–17.55 PANEL DISCUSSION: *Geometry at the technical faculties in Croatia*
- 19.00–.... COLLOQUIUM DINNER

THURSDAY, SEPTEMBER 8

7.00– 9.00 BREAKFAST

Morning session (Chairperson: L. Pletenac)

- 9.00– 9.45 Plenary lecture
J. Szirmai: *Ball packings in Thurston geometries*
- 9.45–10.10 COFFEE BREAK
- 10.10–10.30 J. Horváth, Á. H. Temesvári: *On the thickness of $\langle p, q \rangle$ point systems*
- 10.30–10.50 Á. H. Temesvári: *Multiple circle arrangements*
- 10.50–11.00 PAUSE
- 11.00–11.20 I. Božić: *Some of the most beautiful theorems in triangle geometry*
- 11.20–11.40 H. Halas: *Some triangle geometry of the triangle family*
- 11.40–11.50 CLOSING
- 12.00–14.00 LUNCH
- Departure