



**22nd Scientific-Professional Colloquium on
Geometry and Graphics
ČIOVO
September 5–9, 2021**

ORGANIZER:
Croatian Society for Geometry and Graphics

PROGRAM

PROGRAM COMMITTEE:
Ema Jurkin, Domen Kušar, Boris Odehnal, Jenő Szirmai

DONOR:
SAND d.o.o.

Supported by the Ministry of Science and Education of the Republic of Croatia
and the Foundation of Croatian Academy of Sciences and Arts.



SUNDAY, SEPTEMBER 5

17.00–19.00 Registration

19.00–21.00 DINNER

MONDAY, SEPTEMBER 6

7.00– 9.00 BREAKFAST

Morning session (Chair: M. Šimić Horvath)

9.00– 9.10 OPENING

9.10– 9.50 Plenary lecture

Pavel Pech: *3D Generalization of Simson–Wallace Theorem on Four Lines*

9.55–10.20 COFFEE BREAK

10.20–10.35 Boris Odehnal: *A Rarity in Geometry: a Septic Curve*

10.40–10.55 Daniela Velichová: *Equidistant*

11.00–11.15 Gunter Weiss: *Chains of Hyperosculating Conics*

11.20–11.30 PAUSE

11.30–11.45 István Talata: *On Generalized Hadwiger Numbers of a Convex Body*

11.50–12.05 Tomislav Došlić: *Counting Perfect Stars*

12.30–14.00 LUNCH



Afternoon session (Chair: H. Koncul)

- 15.00–15.40 Plenary lecture
Iva Kodrnja: *Exploration of Measure*
- 15.45–16.10 COFFEE BREAK
- 16.10–16.25 Emil Molnár, István Prok, Jenő Szirmai: *Surgeries of Gieseking Manifold via Computer Figures in C_∞ for Hyperbolic Space H^3*
- 16.30–16.45 Arnasli Yahya, Jenő Szirmai: *Visualization of the Optimal Ball and Horoball Packings Related to Coxeter Tilings Generated by Simply Truncated Orthoschemes with Parallel Faces*
- 16.50–17.05 Zlatko Erjavec: *Generalizations of Killing Vector Fields in Sol Space*
- 17.10–17.20 PAUSE
- 17.20–17.35 Ivana Filipan, Željka Milin Šipuš, Ljiljana Primorac Gajčić, Rafael López: *Involute of Pseudo-Null Curve in Minkowski Space*
- 17.40–17.55 Ljiljana Primorac Gajčić, Željka Milin Šipuš, Ivana Filipan: *Null Scrolls with Prescribed Curvatures in Lorentz-Minkowski 3-space*
- 19.00–21.00 DINNER

TUESDAY, SEPTEMBER 7

- 7.00– 9.00 BREAKFAST
- 9.00–19.00 EXCURSION - Trogir, Klis, Split
- 19.00–21.00 DINNER



WEDNESDAY, SEPTEMBER 8

7.00– 9.00 BREAKFAST

Morning session (Chair: Ž. Milin Šipuš)

9.00– 9.40 Plenary lecture
Guenter Maresch: *Spatial Thinking*

9.45–10.10 COFFEE BREAK

10.10–10.25 Blaženka Divjak, Petra Žugec: *Reliability Measure of Online Assessment within Mathematics*

10.30–10.45 Miklós Hoffmann, László Németh: *Is it a Cube?*

10.50–11.00 PAUSE

11.00–11.15 Christian Clemenz, Leonard Weydemann: *Reflection Techniques in Real-Time Computer Graphic*

11.20–11.45 Leonard Weydemann, Christian Clemenz, Clemens Preisinger: *A Survey of Structural Properties of Voronoi Diagrams*

11.50–12.05 Ivanka Stipančić Klaić: *Faust Vrančić (1551-1617) – the greatest Croatian scientist*

12.30–14.00 LUNCH



Afternoon session (Chair: E. Jurkin)

- 15.00–15.40 Plenary lecture
Sonja Gorjanc: *Special Entirely Spherical Surfaces in Euclidean Space*
- 15.45–16.10 COFFEE BREAK
- 16.10–16.25 Hellmuth Stachel: *Billiards in Ellipses and Ellipsoids*
- 16.30–16.45 Anton Gfrerrer, Paul Zsombor-Murray: *On Normals of Ellipses and Ellipsoids*
- 16.50–17.05 Milena Stavrić, Albert Wiltsche, Gunter Weiss: *Polyhedrons whose Faces are Special Quadric Patches*
- 17.10–17.20 PAUSE
- 17.20–17.35 Paul Zsombor-Murray: *Elliptical Cones, Development & Plumbing*
- 17.40–17.55 Ede Troll: *Nonstandard Subdivision Masks*
- 18.00–18.20 POSTER SESSION
- Zlatko Erjavec, Damjan Klemenčič, Mihaela Laljek: *On Killing Magnetic Curves in Hyperboloid Model of $SL(2, \mathbb{R})$ Geometry*
- Iva Kodrnja: *Acrylic Adventures*
- Helena Koncul, Nino Koncul, Dora Pokaz: *Hyperbolic Paraboloid in four “Perspectives”*
- 20.00–24.00 COLLOQUIUM DINNER



THURSDAY, SEPTEMBER 9

7.00– 9.00 BREAKFAST

Morning session (Chair: Z. Erjavec)

9.00– 9.40 Plenary lecture

Georg Glaeser: *Moonstruck – The Interplay of Celestial Bodies in Pictures*

9.45–10.10 COFFEE BREAK

10.10–10.25 Manfred L. Husty: *Möbius Linkages*

10.30–10.45 Otto Röschel: *Affine Regularization of Planar n -gons in a Finite Number of Steps*

10.50–11.05 Daniel F. Scharler: *Geometry of Split Quaternion Factorization II*

11.10–11.25 PAUSE

11.25–11.40 Nikolina Kovačević: *Quasi-Hyperbolic Plane $\mathfrak{G}(\mathbb{QH}_2)$ via Geometric Algebra*

11.45–12.00 Ema Jurkin: *Curves of Brocard Points in Triangle Pencils in Isotropic Plane*

12.05–12.15 CLOSING

12.30–14.00 LUNCH

Departure