The 4th International Conference on
Surfaces, Analysis, and Numerics in Differential Geometry

The 1st IMAG-OCAMI Joint Conference on Differential Geometry

February 19 - 23, 2024

Venue: Main Conference Room, Rexxam Hall, Takamatsu City

Financial Supports

Organizing Committee

Joseph Cho (TU Wien)
Wayne Rossman (Kobe University)
Seong-Deog Yang (Korea University)
Masashi Yasumoto (chair, Tokushima University)

International Advisory Board

Yoshihiro Ohnita (Waseda University & OCAMI Osaka Metropolitan University)

The 4th International Conference on Surfaces, Analysis, and Numerics in Differential Geometry

The 1st IMAG-OCAMI Joint Conference on Differential Geometry

February 19 - 23, 2024

Venue: Main Conference Room, Rexxam Hall, Takamatsu City

Program

February 19.

9:50-10:00	**Opening**
10:00-10:50	Seungsu Hwang (Chung-Ang University, Korea)
	Einstein-type manifolds having conformal vector fields
11:20-12:10	Lynn Heller (BIMSA, China)
	On the enclosed volume via DPW
14:30-15:20	Pieralberto Sicbaldi (IMAG Universidad de Granada, Spain)
	A Schiffer-type problem in annuli and applications to Euler flows
16:00-16:50	Shin Nayatani (Nagoya University, Japan)
	Eigenvalue maximization and space inflation
17:20-18:10	Antonio Ros (IMAG Universidad de Granada, Spain)
	Minimal surfaces and the first eigenvalue of the Laplacian

February 20.

10:00-10:50	Udo Hertrich-Jeromin (TU Wien, Austria)
	Geometry at infinity
11:20-12:10	Magdalena Rodriguez (IMAG Universidad de Granada, Spain)
	TBA

Short Communications

14:30-14:50	(A) Kazumasa Narita (Nagoya University, Japan)
	Deformation of Kähler metrics and an eigenvalue problem for the Laplacian on a compact Kähler manifold
	(B) Taika Okuda (Tokyo University of Science, Japan)
	Explicit Expression of the Deformation Quantization with separation of variables for $G_{2,4}(\mathbb{C})$
15:00-15:20	(A) Shunsuke Kasao (Kanazawa University, Japan)
	The Bloch-Ros principle and its application to surface theory
	(B) Ryu Ueno (Hokkaido University, Japan)
	Statistical biharmonic map

Parallel Session I

16:00-16:30	(A) Gudrun Szewieczek (TU Munich, Germany)
	Discrete isothermic nets with a family of spherical parameter lines from holomorphic maps
	(B) Keita Kunikawa (Tokushima University, Japan)
	Index estimate for self-shrinkers in higher codimension
16:50-17:20	(A) Yoshiki Jikumaru (Toyo University, Japan)
	Discrete isothermic surfaces and truss structures in architectural design
	(B) Jiewon Park (KAIST, Korea)
	Monotonicity formulae and their geometric implications
17:40-18:10	(A) Thomas Raujouan (Kobe University, Japan)
	Loop Weierstrass Representation
	(B) Kotaro Kawai (BIMSA, China)
	Mirror of minimal submanifolds and a monotonicity formula

February 21.

Parallel Session II

10:00-10:30	(A) Jorge Hidalgo (IMAG Universidad de Granada, Spain)
	Complete CMC-1 surfaces in hyperbolic space with arbitrary complex structure
	(B) Shota Hamanaka (Mitsubishi Electric Corporation Advanced Technology R&D Center, Japan)
	Limit theorems for the total scalar curvature
10:50-11:20	(A) Diego A. Marín (IMAG Universidad de Granada, Spain)
	An overdetermined problem in the 2-sphere and the critical catenoid conjecture
	(B) Toru Kajigaya (Tokyo University of Science, Japan)
	Nonexistence of stable discrete maps into some homogeneous spaces of nonnegative curvature
11:40-12:10	(A) Wonjoo Lee (Korea University, Korea)
	Björling problem and catenoids in the three-dimensional light cone
	(B) Sonia Mahmoudi (AIMR Tohoku University, Japan)
	Embedding of weaving motifs in $T^2 \times I$ and their periodic covers in $\mathbb{E}^3$
12:10-	**Free Discussion**

February 22.

10:00-10:50	Franz Pedit (UMass Amherst, USA)
	Compact minimal Lagrangian surfaces in CP^2
11:20-12:10	Keomkyo Seo (Sookmyung Women's University, Korea)
	Overdetermined boundary value problems in a Riemannian manifold

14:30-15:20   Masaaki Umehara (Tokyo Institute of Technology, Japan)
               Umbilics of surfaces in Euclidean space or Lorentz-Minkowski space
16:00-16:50   Pablo Mira (Universidad Politécnica de Cartagena, Spain)
               Free boundary minimal and CMC annuli in the unit ball
17:20-18:10   Miyuki Koiso (IMI Kyushu University, Japan)
               On a rigidity of piecewise-smooth closed developable surfaces in the three-dimensional Euclidean space

February 23.

10:00-10:50   José M. Espinar (IMAG Universidad de Granada, Spain)
               Frankel property and maximum principle at infinity for complete minimal hypersurfaces

11:20-11:40   **Signing Ceremony**

14:00-14:50   Hiroshi Tamaru (OCAMI Osaka Metropolitan University, Japan)
               Left-invariant geometric structures on Lie groups and their moduli spaces
15:30-16:20   Seong-Deog Yang (Korea University, Korea)
               Spinor representation in isotropic 3-space via Laguerre geometry
16:50-17:40   Joaquín Pérez (IMAG Universidad de Granada, Spain)
               Weak chord-arc estimates for complete branched minimal surfaces of finite index in $\mathbb{R}^3$