

幾何構造と微分方程式  
— 対称性・特異点・応用の視点から —

Geometric Structures and Differential Equations  
— Symmetry, Singularity, and Applications —

Dates: 13-17 July, 2026

Venue: Kyoto University, Research Institute for Mathematical Sciences, Room 111.

Organizers: Kenro Furutani (Osaka Metropolitan University / Tokyo University of Science)

Shoya Motonaga (Kyushu Institute of Technology)

Daisuke Tarama (Ritsumeikan University, main)

Hiroaki Yoshimura (Waseda University)

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Monday, 13/July/2026

12:50 – 13:00 Opening

13:00 – 14:00 Kazuyuki Yagasaki (Kyoto University)

*Linearization and integrability of continuous and discrete dynamical systems*

14:15 – 15:15 Keiichi Sakai (Shinshu University)

*Diffeological spaces and their Riemannian structures*

15:30 – 16:30 Irina Markina (University of Bergen) online

*Nilpotent Lie groups and ultra-hyperbolic differential operators*

Tuesday, 14/July/2026

10:00 – 11:00 Holger Dullin (University of Sydney)

*The  $n$ -body problem on coadjoint orbits*

11:15 – 12:15 Yusaku Tiba (Ochanomizu University)

*On the Bohr–Sommerfeld condition and the convergence of holomorphic sections*

14:00 – 15:00 Shouhei Honda (University of Tokyo)

*Gel'fand's inverse problem under Ricci curvature bounds*

15:15 – 16:15 Yoshihiro Fukumoto (Ritsumeikan University)

*Involutions on 4-dimensional orbifold cobordisms*

Wednesday, 15/July/2026

10:00 – 11:00 Chisato Iwasaki (University of Hyogo)

*Heat kernels for Laplacians on infinite cones in low dimensions*

11:15 – 12:15 Takaharu Yaguchi (Kyushu University)

*Methods for learning symplectic forms*

14:00 – 15:00 Ursula Ludwig (University of Côte d'Azur)

*Analytic torsion on singular spaces*

15:15 – 16:15 Yurii Nikonorov (Southern Mathematical Institute of VSC RAS) online

*Properties of plane angles of tetrahedra with a given base*

Thursday, 16/July/2026

10:00 – 11:00 Junya Takahashi (Tohoku University)

*Comparison of the eigenvalues of the Hodge-Laplacian and special differential forms*

11:15 – 12:15 Hajime Fujita (Japan Women's University)

*On a compactification of the orthogonal foliation via toric geometry*

14:00 – 15:00 Jérémie Pierard de Maujouy

*Statistical cones from thermodynamics on nilpotent coadjoint orbits*

15:15 – 16:15 Kiyoshi Takeuchi (Tohoku University)

*Lagrangian cycles and constructible sheaves*

Friday, 17/July/2026

11:00 – 12:00 Shigeki Matsutani (Kanazawa University)

*Algebro-geometric solutions of the MKdV equation and the supercoiled structure of DNA*

13:30 – 14:30 Konstantinos Efstathiou (Duke Kunshan University)

*Singular Lagrangian fibration of a Tavis-Cummings system with an  $A_2$  singularity*

14:40 – 15:40 Toshihiro Iwai (Kyoto University)

*Jahn-Teller systems with cubic symmetry in the bundle formulation*

15:40 – 15:50 Closing

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