

# 2023 OCAMI-RIRCM International Workshop on Geometry and Symmetric Spaces

— The 20th OCAMI-RIRCM Joint Differential Geometry Workshop

**Date:** February 22 (Wed) – 24 (Fri), 2023

**Place:**

Osaka Metropolitan University (Room F205, Building F of Faculty of Science)

**Organizers:**

Takashi Sakai (Tokyo Metropolitan University), Yuichiro Taketomi (Osaka Metropolitan University), Hiroshi Tamaru (Osaka Metropolitan University), Makiko Sumi Tanaka (Tokyo University of Science), Hyunjin Lee (Chosun University), Juncheol Pyo (Pusan National University), Changhwa Woo (Pukyong National University)

**Support:**

JSPS Kakenhi

Osaka Central Advanced Mathematical Institute (OCAMI), Osaka Metropolitan University  
Research Institute of Real and Complex Manifolds (RIRCM), Kyungpook National University

## February 22 (Wed)

### Opening

13:50–14:00

- 14:00–14:45

**Makiko Sumi Tanaka** (Tokyo University of Science)

*Antipodal sets of compact symmetric spaces*

- 15:00–15:20

**Eungbeom Yeon** (Pusan National University)

*Minimal hypersurfaces in Schwarzschild Riemannian  $n$ -manifolds*

- 15:30–15:50

**Yuan Shyong Ooi** (Pusan National University)

*Higher codimension minimal submanifold with isolated singularity*

### Tea Break

15:50–16:10

- 16:10–16:30

**Yuichiro Taketomi** (Osaka Metropolitan University)

*A maximal element of a moduli space of Riemannian metrics*

- 16:40–17:00

**Hyunjin Lee** (Chosun University)

*Cyclic parallel normal Jacobi operator for Hopf real hypersurfaces in complex Grassmannians of rank 2*

- 17:10–17:30

**Gyu Jong Kim** (Woosuk University)

*Real hypersurfaces in complex quadric with Reeb invariant structure Jacobi operator*

## February 23 (Thu)

- 10:00–10:45  
**Young Jin Suh** (Kyungpook National University)  
*Yamabe, Ricci-Bourguignon solitons in the complex hyperbolic quadric and related topics*
- 11:00–11:45  
**Osamu Ikawa** (Kyoto Institute of Technology)  
 *$\sigma$ -actions associated with triality automorphism on  $Spin(8)$*
- 11:55–12:15  
**Satoshi Ogawa** (Osaka Metropolitan University)  
*Linearization of transition functions along a certain class of Levi-flat hypersurfaces*
- 12:25–12:45  
**Akifumi Nakada** (Hiroshima University)  
*The Delsarte theory for probability measures on homogeneous spaces*

### Lunch Break

12:45–14:00

- 14:00–14:45  
**Juncheol Pyo** (Pusan National University)  
*Solitons for the mean curvature flow*
- 15:00–15:20  
**Luis Pedro Castellanos Moscoso** (Osaka Metropolitan University)  
*Symplectic structures on almost abelian Lie algebras*
- 15:30–15:50  
**Fumika Mizoguchi** (Osaka City University)  
*Nilpotent Lie algebras obtained by quivers and Ricci solitons*

### Tea Break

15:50–16:10

- 16:10–16:30  
**Yimin Chen** (Pusan National University)  
*Heintze Karcher type inequalities on capillary hypersurfaces in hyperbolic space*
- 16:40–17:00  
**Sanghun Lee** (Pusan National University)  
*Rigidity for the weighted area-minimizing hypersurfaces*
- 17:10–17:30  
**Sangwoo Park** (Pusan National University)  
*Rigidity theorems for free boundary minimal hypersurfaces in a geodesic ball*

## February 24 (Fri)

- 10:00–10:45  
**Taro Kimura** (National Institute of Technology, Tsuruoka College)  
*Biharmonic Cartan embeddings*
- 11:00–11:20  
**Changhwa Woo** (Pukyong National University)  
*Real hypersurfaces in the complex quadric with semi-symmetric structure Jacobi operator*
- 11:30–11:50  
**Kyoji Sugimoto** (Tokyo University of Science)  
*A duality between para-Hermitian symmetric spaces and pseudo-Hermitian symmetric spaces*

**Closing**  
11:50–12:00