

# Analysis, Geometry and Stochastics on Metric Spaces

**Date:** September 25-27, 2023

**Venue:** Research Institute for Mathematical Sciences (RIMS), Kyoto University,  
Kyoto, Japan

**HP:** <https://heksagon-rims2023.com>



## Program

25 Monday, September

9:30–10:20 Stephan Huckemann (University of Göttingen)

The wald space for phylogenetic trees

10:30–11:20 Shinpei Baba (Osaka University)

Bers' simultaneous uniformization and complex projective structures on Riemann surfaces

11:30–12:20 Stephan Klaus (Mathematisches Forschungsinstitut Oberwolfach)

On combinatorial Riemannian manifolds

Lunch break

13:50–14:40 Shouhei Honda (Tohoku University)

Almost rigidity for Green function with nonnegative Ricci curvature

15:00–15:50 Fernando Galaz-García (Durham University)

Metric geometry of spaces of persistence diagrams

16:00–16:50 Hông Vân Lê (Czech Academy of Sciences)

Statistical Learning on Metric Spaces

26 Tuesday, September

9:30–10:20 Hideo Kozono (Waseda University & Tohoku University)

$L^r$ -Helmholtz-Weyl decomposition in 3D exterior domains and its application to the Navier-Stokes equations

10:30–11:20 Naotaka Kajino (Kyoto University)

Impossibility of quasisymmetric Gaussian uniformization, via decay rates of harmonic functions, for Brownian motion on some planar Sierpiński carpets

11:30–12:20 Christian Ketterer (University of Freiburg)

Glued spaces and lower Ricci curvature bounds

Lunch break

13:50–14:40 Peer Chr. Kunstmann (Karlsruhe Institute of Technology)

On the Stokes operator with first order boundary conditions on unbounded domains

15:00–15:50 Stephan Stadler (Max Planck Institute for Mathematics Bonn)

Isoperimetric inequalities vs. upper curvature bounds

16:00–16:50 Yoshihiko Matsumoto (Osaka University)

Holography in conformal and CR geometry

27 Wednesday, September

9:30–10:20 Shin-ichi Ohta (Osaka University)

Geometry of weighted Finsler spacetimes

10:30–11:20 Keisuke Takasao (Kyoto University)

Monotonicity formula of Allen-Cahn equations for surface evolution equations

11:30–12:20 Fei Han (National University of Singapore)

New Bochner Type Theorems

## Organizers

Ryushi Goto (Osaka University)

Stephan Huckemann (University of Göttingen)

Senjo Shimizu (Kyoto University)

Takashi Shioya (Tohoku University)

Wilderich Tuschmann (Karlsruhe Institute of Technology)