

# Research on topology and differential geometry using singularity theory of differentiable maps

RIMS Workshop



Date : December 4 (Tuesday), 2018 – December 7 (Friday), 2018  
Venue : Room 110, Research Institute for Mathematical Sciences, Kyoto University, Japan.  
HP : <http://siva.cc.hirosaki-u.ac.jp/usr/minomoto/18rims/index-e.html>

## 【Program】

### December 4 (Tuesday)

- 13:00–13:45 Cuilian Zhang (Northeast Normal University)  
**The Gauss-Bonnet theorem for fronts in the hyperbolic space  
and the de Sitter space**
- 14:00–14:45 Alex Paulo Francisco (University of São Paulo)  
**Geometric deformations of curves in the Minkowski plane**
- 15:00–15:45 Shyuichi Izumiya (Hokkaido University)  
**Evoltooids and Pedaloids of plane curves**
- 16:00–16:45 Takashi Nishimura (Yokohama National University)  
**Limit of the Hausdorff distance for one-parameter families  
of some Wulff shapes**

### December 5 (Wednesday)

- 9:45–10:30 Naoki Kitazawa (Institute of Mathematics for Industry, Kyushu University)  
**Lifts of fold maps to immersions, embeddings and other fold maps**
- 10:45–11:30 Dominik Wrazidlo (Kyushu University)  
**Gluing and pasting of Morse functions**
- 13:00–13:45 Kenta Hayano (Keio University)  
**Stability of non-proper functions**
- 14:00–14:45 Hellen Monção de Carvalho Santana (Univ. of São Paulo, Aix-Marseille Univ.)  
**Some results about functions with one-dimensional singular set**
- 15:00–15:45 Joachim Rieger (Martin Luther University of Halle-Wittenberg)  
**Inner and outer projections of surfaces in  $P^3$**

## December 6 (Thursday)

- 9:45–10:30 Keisuke Teramoto (Kobe University)  
**Surfaces of revolution of frontal curves**
- 10:45–11:30 Naoto Yotsutani (Kagawa University)  
**Geometric Invariants and singularities  
from the viewpoint of cscK metrics**
- 13:00–13:45 Yoshiaki Yamamoto (Kobe University)  
**Properties of various surfaces by contact  
with a standard cuspidal edge**
- 14:00–14:45 Goo Ishikawa (Hokkaido University)  
**Cofrontals**
- 15:00–15:45 Tomonori Fukunaga (Kyushu sangyo university)  
**Framed surfaces and one-parameter families of framed curves**
- 16:00–16:45 Shinichi Tajima (Niigata University)  
**An algorithm for computing  $\kappa$  invariants**

## December 7 (Friday)

- 9:45–10:30 Kazumasa Inaba (Tohoku University)  
**On the number of cusps of deformations of complex polynomials**
- 10:45–11:30 Nivaldo de Góes Grulha Júnior (University of São Paulo)  
**The Chern-Schwartz-MacPherson Class of  
Generic Determinantal Varieties**
- 11:45–12:30 Timo Essig (Hokkaido University)  
**Intersection Space Cohomology via Differential Forms**

\*A party will be held on December 5.

Organizers: Minoru Yamamoto (Hirosaki University)  
Takahiro Yamamoto (Tokyo Gakugei University)