

# Singularity theory of differential maps and its applications

RIMS Workshop



Date : December 6th (Tuesday), 2016 – December 9th (Friday), 2016  
Venue : Room 111, Research Institute for Mathematical Sciences, Kyoto University, Japan.  
HP : <http://www.mmm.muroran-it.ac.jp/~masatomo/suurikenn2016e.html>

## [Program]

### December 6th

- 13:00–13:45 Goo Ishikawa (Hokkaido University)  
**Null frontal singular surfaces in Lorentzian 3-spaces**
- 14:00–14:45 Tatsuya Yamashita (Hokkaido University)  
**Differentiable rings, analytic rings, Nash rings  
and their applications to singularity theory**
- 15:15–16:00 Yu Haiou (Northeast Normal University)  
**Envelopes of Legendre curves in the unit spherical bundle**
- 16:15–17:00 Shun'ichi Honda (Hokkaido University)  
**Spherical framed curves and its applications**

### December 7th

- 9:45–10:30 Huhe Han (Yokohama National University)  
**Self-dual Wulff shapes and spherical convex bodies of constant width  $\frac{\pi}{2}$**
- 10:45–11:30 Minoru Yamamoto (Hirosaki University)  
**Construction of fold map of lens space  $L(p,1)$  where singular set is a torus**
- 13:00–13:45 Yoshihito Kohsaka (Kobe University)  
**Stability of Delaunay surfaces as steady states  
for a geometric evolution equation**
- 14:00–14:45 Tomonori Fukunaga (Kyushu Sangyo University)  
**Framed surfaces and singularities**
- 15:15–16:00 Liang Chen (Northeast Normal University)  
**On geometry of Bertrand curves in 3-space form**
- 16:15–17:00 Shyuichi Izumiya (Hokkaido University)  
**Geometric equivalence among section-germs of vector bundles**

## December 8th

- 9:45–10:30 Kaihang Fang (Hokkaido University)  
**On duality between horocyclic surfaces and de Sitter horocyclic surfaces**
- 10:45–11:30 Yosihiko Aoto (Tokyo Institute of Technology)  
**Horocyclic evolutoids**
- 13:00–13:45 Jean-Baptiste Campesato (Saitama University)  
**On a motivic invariant of the arc-analytic equivalence**
- 14:00–14:45 Karim Bekka (Université de Rennes 1)  
**Determinacy of non-isolated singularities**
- 15:15–16:00 Naohiko Kasuya (Aoyama Gakuin University)  
**Knots and links of complex tangents**
- 16:15–17:00 Osamu Saeki (Kyushu University)  
**A Vassiliev type invariant of order one for stable maps of 3-manifolds into surfaces**

## December 9th

- 9:45–10:30 Shunsuke Ichiki (Yokohama National University)  
**Preservation of immersed or injective properties by composing generic generalized distance-squared mappings**
- 10:45–11:30 Asahi Tsuchida (Hokkaido University)  
**The theory of generalized Hamiltonian systems and its applications to geometric control theory and sub-Riemannian geometry**
- 11:45–12:30 Masaru Hasegawa (Iwate Medical University)  
**On umbilics on newly born surfaces**

\*A party will be held on December 7th.

Organizers: Masatomo Takahashi (Muroran Institute of Technology)  
Takahiro Yamamoto (Kyushu Sangyo University)