

APPLICATIONS OF SINGULARITY THEORY TO TOPOLOGY, DIFFERENTIAL GEOMETRY AND RELATED FIELDS

Date: June 16 (Thu), 2022 – June 18 (Sat), 2022

Venue: Zoom

HP: <https://www.fit.ac.jp/~fukunaga/conf/sing202206.html>

Registration: Please register as a participant through the link in the above HP
or <https://forms.office.com/r/pQD6sACzwC>.

Program

June 16 (Thu.) (Zoom)

10:00–10:50: Goo Ishikawa (Hokkaido University)
Singular curves of $(4, 7)$ distributions

11:05–11:55: Naoki Hamada (KLab Inc.)
Fun is study: singularity theory and multiobjective optimization in game AI

13:30–14:20: Lei Xiaowen (University of Fukui),
Atsushi Nagai (University of Fukui)
The theoretical study of deformation of graphene sheet with lattice defects

14:35–15:25: Kyoya Hashibori (Hokkaido University)
Gauss-Bonnet Type Theorems and Topology of Surface-to-Surface Mappings

15:45–16:35: Kentaro Saji (Kobe University)
Criteria for sharkskin and deltoid singularities from the plane into the plane and their applications

16:50–17:40 (CEST 9:50–10:40): Christian Muñoz-Cabello (Universitat València)
Singularities of frontal surfaces

June 17 (Fri.) (Zoom)

10:00–10:50: Hiroshi Teramoto (Kansai University)
A generalization of Montaldi's theorem and its application to classification of feasible set germs

11:05–11:55: Osamu Saeki (Kyushu University)
Simplifying generic mappings into S^2 and \mathbf{R}^2

13:30–14:20: Masato Tanabe (Hokkaido University)
Canonical stratification of definable groupoids

14:35–15:25: Shin Kaneda (Hiroshima University)
Nonorientable maximal surfaces and their singular points

15:45–16:35: Masatomo Takahashi (Muroran Institute of Technology)
On geodesics of framed surfaces in the Euclidean 3-space

16:50–17:40 (CEST 9:50–10:40): Nacho Brea Ribes (Universitat València)
Simplicity of augmentations of codimension 1 germs or by Morse functions

June 18 (Sat.) (Zoom)

10:00–10:50: Kazumasa Inaba (Okayama University of Science)
A generalized Join theorem for real analytic singularities

11:05–11:55: Atsuhide Mori (Osaka Dental University),
Yoshihiko Mitumatsu (Chuo University),
Naohiko Kasuya (Hokkaido University)
On the Lefschetz like critical points and Lefschetz fibration on Milnor fibers

13:30–14:20: Ryosuke Ota (Kyushu University)
Fold concordances of Morse functions on a closed orientable surface

14:35–15:25: Takahiro Yamamoto (Tokyo Gakugei University)
Topology of stable maps of surfaces with boundary into the plane

15:40–16:30: Takashi Nishimura (Yokohama National University)
On the Gauss mapping of a line family in the plane

Supports: JSPS KAKENHI

- “Developments and Applications of Geometric Singularity Theory” (19K03458),
PI: Goo Ishikawa
- 「写像の多重特異点の数え上げ普遍多項式と量子シューベルト算法」 (17H02838),
PI: Toru Ohmoto
- “Theory of framed curves, framed surfaces and its application” (20K03573),
PI: Masatomo Takahashi

Organizers:

Shunsuke Ichiki (Tokyo Institute of Technology),
Keiosuke Teramoto (Hiroshima University),
Tomonori Fukunaga (Fukuoka Institute of Technology)