

RIMS 共同研究 (公開型)

研究集会「特異点論の展開」
Extension of the Singularity theory



日時: 2023年11月27日 – 2023年11月29日

会場: 京都大学数理解析研究所 111号室

HP : <https://www2.akita-nct.ac.jp/kasedou/workshop/rims2023/indexj.html> (日本語)

<https://www2.akita-nct.ac.jp/kasedou/workshop/rims2023/index.html> (英語)

プログラム

11月27日(月)

- 9:50 – 10:30 田島 慎一 (新潟大学フェロー / 東京理科大学)
多項式関数の bifurcation set の計算法 II (鍋島克輔と共同)
- 10:40 – 11:20 北澤 直樹 (九州大学マス・フォア・インダストリ研究所 / 大阪公立大学数学
研究所) [Zoom]
Special generic maps on closed and simply-connected manifolds of dimension 6
- 11:30 – 12:10 Laurentiu Paunescu (University of Sydney)
Zariski's dimensionality type of singularities. Case of dimensionality type 2
(joint with Adam Parusiński)
- 13:40 – 14:20 山本 卓宏 (東京学芸大学)
Surfaces formed by one-parameter families of parabolas in \mathbb{R}^3
(joint work with Nobuko Takeuchi)
- 14:30 – 15:10 平松 篤樹 (埼玉大学理工学研究科)
Versality of the folding family
- 15:20 – 16:00 石川 剛郎 (北海道大学理学研究院)
Singular curves of (3, 5) distributions
- 16:10 – 16:50 韓 呼和 (西北農林科技大学)
On the spherical polytopes pair separated by spherical polytope



11月28日(火)

- 9:00 – 9:40 山内 優太 (横浜国立大学)
Fenchel's theorem for wave fronts
- 9:50 – 10:30 服部 祐樹 (横浜国立大学)
Bour's theorem for helicoidal surfaces with singularities
- 10:40 – 11:20 梅原 雅顕 (東京工業大学, 数理・計算科学系)
実解析写像の像の解析的拡張の可能性の判定と応用
- 11:30 – 12:10 小林 真人 (秋田大学)
An elementary reproof of Fabricius Bjerre theorem for polygons
- 13:40 – 14:20 佐久間 一浩 (近畿大学) [Zoom]
Fold maps on complex projective spaces
- 14:30 – 15:10 林 弘幸 (神戸大学大学院理学研究科)
Geometry on curves passing through Whitney umbrella
- 15:20 – 16:00 島田 瑠奈 (神戸大学大学院理学研究科)
 S_1 特異点の変形の幾何学
- 16:10 – 16:50 西村 尚史 (横浜国立大学)
Problems related to creative conditions on envelopes

11月29日(水)

- 9:00 – 9:40 中津山 希 (室蘭工業大学)
On vertices of frontals in the Euclidean plane
- 9:50 – 10:30 岩倉 康樹 (九州大学マスフォアイノベーション関係学府)
Non-singular extensions of circle-valued Morse functions
- 10:40 – 11:20 裴 東河 (東北師範大学)
Null type surfaces in Minkowski 3-space

支援: 科研費基盤 (C) 23K03106 (研究代表者 福井 敏純)
京都大学 RIMS 共同研究 (公開型)

世話人: 加世堂 公希 (秋田高専), 土田旭 (滋賀大学)

Extension of the Singularity theory



Date: November 27th, 2023 – November 29th, 2023
Venue: Room 111, Research Institute for Mathematical Sciences,
Kyoto University, Japan
HP : <https://www2.akita-nct.ac.jp/kasedou/workshop/rims2023/index.html>

[Program]

November 27th (Monday)

- 9:50 – 10:30 Shinichi Tajima (Niigata University)
Algorithm for computing bifurcation set of a complex polynomial map
(joint work with Kasusuke Nabeshima)
- 10:40 – 11:20 Naoki Kitazawa (Institute of Mathematics for Industry, Kyushu University /
Osaka Central Advanced Mathematical) [Zoom]
Special generic maps on closed and simply-connected manifolds of dimension 6
- 11:30 – 12:10 Laurentiu Paunescu (University of Sydney)
Zariski's dimensionality type of singularities. Case of dimensionality type 2
(joint with Adam Parusiński)
- 13:40 – 14:20 Takahiro Yamamoto (Tokyo Gakugei University)
Surfaces formed by one-parameter families of parabolas in \mathbb{R}^3
(joint work with Nobuko Takeuchi)
- 14:30 – 15:10 Atsuki Hiramatsu (Saitama University)
Versality of the folding family
- 15:20 – 16:00 Goo Ishikawa (Faculty of Sciences, Hokkaido University)
Singular curves of $(3, 5)$ distributions
- 16:10 – 16:50 Huhe Han (Northwest A&F University)
On the spherical polytopes pair separated by spherical polytope



November 28th (Tuesday)

- 9:00 – 9:40 Yuta Yamauchi (Yokohama National University)
Fenchel's theorem for wave fronts
- 9:50 – 11:30 Yuki Hattori (Yokohama National University)
Bour's theorem for helicoidal surfaces with singularities
- 10:40 – 11:20 Masaaki Umehara (Department of Mathematical and Computing Science,
Tokyo Institute of Technology)
Unextendability of real analytic map images and its application
- 11:30 – 12:10 Mahito Kobayashi (Akita University)
An elementary reproof of Fabricius Bjerre theorem for polygons
- 13:40 – 14:20 Kazuhiro Sakuma (Kindai University) [Zoom]
Fold maps on complex projective spaces
- 14:30 – 15:10 Hiroyuki Hayashi (Department of Mathematics, Graduate School of Science,
Kobe University)
Geometry on curves passing through Whitney umbrella
- 15:20 – 16:00 Runa Shimada (Department of Mathematics, Graduate School of Science,
Kobe University)
Geometry on deformations of the S_1 singularity
- 16:10 – 16:50 Takashi Nishimura (Yokohama National University)
Problems related to creative conditions on envelopes

November 29th (Wednesday)

- 9:00 – 9:40 Nozomi Nakatsuyama (Muroran Institute of Technology)
On vertices of frontals in the Euclidean plane
- 9:50 – 11:30 Koki Iwakura (Kyushu University Joint Graduate School of Mathematics
for Innovation)
Non-singular extensions of circle-valued Morse functions
- 10:40 – 11:20 Donghe Pei (Northeast Normal University)
Null type surfaces in Minkowski 3-space

Sponsors: JSPS Grant-in-aid (C) 23K03106 (PI: Toshizumi Fukui)
RIMS Symposia (open)

Organizers: Masaki Kasedou (NIT, Akita), Asahi Tsuchida (Shiga University)