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微分方程式と微分幾何学への応用特異点論

京都大学数理解析研究所

2009年9月

RIMS Kôkyûroku 1664

*Applications of singularity theory to
differential equations and differential geometry*

September, 2009

Research Institute for Mathematical Sciences

Kyoto University, Kyoto, Japan

This is a report of research done at the Research Institute for Mathematical Sciences, Kyoto University. The papers contained herein are in final form and will not be submitted for publication elsewhere.

「Applications of singularity theory to differential equations and differential geometry」

RIMS Workshop

Organizer : Masatomo Takahashi (Muroran institute of technology)

Dates : 8–11 December 2008

Venue : Room 115, Research Institute for Mathematical Sciences, Kyoto University

[PROGRAM]

8th December 2008 (Monday)

- 13:45—14:45 Susumu Tanabe (Kumamoto University)
「Wave front propagation and the discriminant of an complete intersection singularity」
- 15:00—16:00 Yumiko Kitagawa (Osaka City University Advanced Mathematical Institute)
「An equivalence problem of homogeneous sub-Riemannian structures」
- 16:15—17:15 Karim Bekka (Université de Rennes 1)
「Uniform radius and regular stratifications」

9th December 2008 (Tuesday)

- 10:00—11:00 Pierre Milman (University of Toronto)
「An affine Bezout type theorem and projective completions of affine varieties」
- 11:15—12:15 Edward Bierstone (University of Toronto)
「 \mathbb{Q} -universal resolution of singularities」
- 12:15—13:45 Lunch break
- 13:45—14:45 Kazuhiro Shibuya (Hokkaido University)
「A set of integral elements of higher order jet spaces」
- 15:00—16:00 Takahiro Noda (Nagoya University)
「Equivalence problem of second order PDE and flat model space」
- 16:15—17:15 Yoshinori Machida (Numazu College of Technology)
「Equivalence problems of implicit ordinary differential equations」
- 18:30— Reception

10th December 2008 (Wednesday)

10:00—11:00 Kong LingLing (Northeast Normal University)

「On spacelike curves in nullcone space」

11:15—12:15 Pei DongHe (Northeast Normal University)

「Singularities of nullsphere Gauss map

for spacelike surface in nullcone 3-space」

12:15—13:45 Lunch break

13:45—14:45 Hasegawa Masaru (Saitama University)

「Singularities of parallel surfaces」

15:00—16:00 Masahiko Tomonobu (Yokohama National University)

「Bifurcation of indices in one-parameter deformations」

16:15—17:15 Shyuichi Izumiya (Hokkaido University)

「Horospherical geometry in the hyperbolic space」

11th December 2008 (Thursday)

10:00—11:00 Jiro Adachi (Hokkaido University)

「A certain surgery of 4-dimensional manifold and Engel structure」

11:15—12:15 Goo Ishikawa (Hokkaido University)

「Legendre surfaces with boundaries and projective duality」

微分方程式と微分幾何学への応用特異点論
 Applications of singularity theory to differential equations and differential geometry
 RIMS 研究集会報告集

2008年12月8日～12月11日
 研究代表者 高橋 雅朋 (Masatomo Takahashi)

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