

数理解析研究所講究録 1664

# 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*

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*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」

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 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)

目 次

1.	Wave front propagation and the discriminant of a tame polynomial -----	1
	熊本大・自然科学(Kumamoto U.)                      田邊 晋(Susumu Tanabé)	
2.	An equivalence problem of homogeneous sub-Riemannian structures -----	20
	大阪市大・数学研(Osaka City U.)                      北川 友美子(Yumiko Kitagawa)	
3.	A set of integral elements of higher order jet spaces -----	34
	北大・理学(Hokkaido U.)                                  渋谷 一博(Kazuhiro Shibuya)	
4.	An equivalence problem for second order PDE and double fibration as a flat model space -----	46
	名大・多元数理科学(Nagoya U.)                      野田 尚廣(Takahiro Noda)	
5.	Clairaut 方程式とツイスター理論 -----	56
	沼津工業高専(Numazu Coll. Tech.)                      待田 芳徳(Yoshinori Machida)	
6.	On spacelike curve in nullcone 3-space -----	68
	Northeast Normal U.                                      Lingling Kong	
	"	Donghe Pei
7.	Singularities of nullsphere Gauss map for spacelike surface in nullcone 3-space -----	71
	Northeast Normal U.                                      Donghe Pei	
	"	Lingling Kong
8.	平行曲面の特異点 -----	75
	埼玉大・理工学(Saitama U.)                              長谷川 大(Masaru Hasegawa)	
9.	Bifurcation of indices in one-parameter deformations -----	80
	横浜国大・環境情報学(Yokohama Nat. U.)                      友延 政彦(Masahiko Tomonobu)	
10.	A survey on horospherical geometry of submanifolds in hyperbolic space -----	84
	北大・理学(Hokkaido U.)                                  泉屋 周一(Shyuichi Izumiya)	
11.	4次元多様体の手術と Engel 構造 -----	105
	北大・理学(Hokkaido U.)                                  足立 二郎(Jiro Adachi)	
12.	境界付きルジャンドル曲面の特異性幾何と射影双対 -----	117
	北大・理学(Hokkaido U.)                                  石川 剛郎(Goo Ishikawa)	