

Research Center for Integrative Mathematics Symposium Mathematical Aspects of Image Processing and Computer Vision 2010

The 10th Symposium of MAIPCV

Date (日程) : November 25 -27, 2010

Location (場所) : Clark Student Memorial Center, Hokkaido University
北海道大学クラーク会館講堂

November 25, 2010 (Thursday)

10:00--10:30 Opening Remarks

10:30--11:30 Koichiro Deguchi (Tohoku University) (出口 光一郎, 東北大学)

Keynote address: Mathematical Aspects of Image Processing and Computer Vision

11:30--13:00 Discussion and Lunch Break

13:00--14:00 Kenichi Kanatani (Okayama University) (金谷 健一, 岡山大学)

Hyper least squares and its applications

14:00--14:30 Discussion and Break

14:30--15:30 Yoshinori Teshima (Advanced Industrial Science and Technology)

(手嶋 吉法, 産業技術総合研究所)

Touchable exact 3D models for intuitive mathematics

15:30--16:00 Discussion and Break

16:00--17:00 Masaaki Yoshida (Kyushu University) (吉田 正章, 九州大学)

Discrete holomorphic functions and discrete flat surfaces

November 26, 2010(Friday)

10:00--11:00 Yosef Yomdin (The Weizmann Institute of Science)

Representation, processing and animation of images via geometric models

11:00--11:30 Discussion and Break

11:30--12:30 Takayuki Okatani (Tohoku University) (岡谷 貴之, 東北大学)

Toward more accurate statistical inference of geometric structures from images

12:30--14:00 Discussion and Lunch Break

14:00--15:00 Andrea L. Bertozzi (University of California, Los Angeles)

Geometric methods in imaging applications

15:00--15:15 Discussion and Break

15:15--16:15 Jean-Paul Gauthier (Université de Toulon)

Antropomorphic image reconstruction via hypoelliptic diffusion

16:15--16:45 Discussion and Break

16:45--17:45 Suguru Arimoto (Ritsumeikan University) (有本 卓, 立命館大学)

Stable object grasping and manipulation by multi-joint robot fingers under rolling contacts between arbitrary contour curves or curved surfaces

18:30 Reception at Century Royal Hotel

November 27, 2010 (Saturday)

10:00--11:00 Bin Dong (University of California, San Diego)

Some mathematical models in medical imaging, shape processing and analysis

11:00--11:30 Discussion and Break

11:30--12:30 Xavier Pennec (INRIA Sophia-Antipolis)

Statistical computing on manifolds: from Riemannian geometry to computational anatomy

12:30--14:00 Discussion and Lunch Break

14:00--15:00 Shun-ichi Amari (RIKEN Brain Science Institute) (甘利俊一, 独立行政法人理化学研究所)

Divergence functions, information geometry and image processing

15:00--15:30 Closing Remarks

Organizers: Y. Giga (Univ. of Tokyo), S. Izumiya (Hokkaido Univ.), Y. Tonegawa (Hokkaido Univ.), and K. Deguchi (Tohoku Univ.)

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