

# SCMS Workshop

## 2<sup>nd</sup> International Workshop on Information Geometry and Affine Differential Geometry

When: April 11 and 12, 2014

Where: Shanghai Center for Mathematical Sciences, Fudan University, Shanghai, China

Information geometry is the geometric study of the manifold of probability density functions, with applications in statistical inference, machine learning, optimization, neural computation, etc. This workshop will focus on the foundation and application of affine differential geometry to the study of information geometry.

### ***Confirmed Speakers:***

#### **On Information Geometry**

Shunichi Amari, RIKEN Brain Science Institute, Japan

Information Geometry: Overview with Historical Remarks

Hiroshi Matsuzoe, Nagoya Institute of Technology, Japan

Statistical Manifolds in Affine Differential Geometry and Their Generalizations

Atsumi Ohara, University of Fukui, Japan

Conformal Flattening and Generalized Entropies: An Affine Differential Geometric Approach

Jun Zhang, University of Michigan, USA

Contrast ("divergence") Functions and Geometric Structures They Induce on a Manifold

Shiro Ikeda, Institute of Statistical Mathematics, Japan

Optimization of Probability Measures and Information Geometry

#### **On Affine Differential Geometry**

Anmin Li 李安民 (with Guosong Zhao 赵国松), Sichuan University

Recent Development of Affine Differential Geometry

Changping Wang 王长平, Fuzhou Normal University

Geometries and Invariants of Transformation Groups

Huili Liu 刘会立, Northeastern University

Centroaffine Geometry of Codimension Two: Fundamental Theories and Classifications

Haizhong Li 李海中, Tsinghua University

Locally Strongly Convex Affine Hypersurfaces with Parallel Cubic Form

Workshop is open to public and registration is free. Interested researchers and students wishing to attend should contact Dr. Jun Zhang ([junz@umich.edu](mailto:junz@umich.edu)) for more information. For logistic questions, contact [caiy@fudan.edu.cn](mailto:caiy@fudan.edu.cn)