

Australia-Japan Workshop on Data Science

Dates: Tuesday 24 March 2009 to Friday 27 March 2009

Place: Seminar Room 1, Yagami Campus, Keio University, Yokohama, Japan

This is the first workshop on Data Science for accelerating Australia-Japan research collaboration. The workshop forms a part of the AJF program "Bilateral collaboration for the development of innovative tools in ecological management" which is funded by the Australian government. CMIS (CSIRO Division of Mathematical and Information Sciences, Australia) and Keio (Data Science group in Keio University) have complimentary needs. CMIS people are strong in applying existing statistical methods to large and interesting data sets and welcome the opportunity to collaborate with scientists to develop theory which supports their analyses. Keio has been developing new ideas on efficient environment for working with data as a science and are looking for real-world data to further develop these ideas. CMIS are always seeking partnerships to improve their methodology or way of exploring data, and Keio faculties and students need to have chances to work with people who are working with real data. Reflecting on such complimentary needs, the structure of the workshop is then

- i) Presentations on the current research collaboration:
 - ① Multiple Thomas model for Trawling Data,
 - ② Application of DandD environment for data integration,
 - ③ Estimation of penetration rate of colorectal cancer
- ii) Presentations on possible future projects:
 - CERF project, Effect of Cultivation Fishery, Water Quality Analysis, Health Science, Genome Analysis, Inter-population validation of genetic linkage with colorectal cancer using multiple statistical data reduction methodologies, Detection of anomalies through data
- iii) Roundtable discussions on possible strategies, research groupings, reserach providers.

The workshop provides an excellent opportunity to have face-to-face meetings that settle on future research projects and frameworks which can then be polished up later on after everyone has returned home. Researchers or students not only in CMIS and

Keio but also in other institutions or universities over the world are all welcome to join us on this opportunity.

2. List of topics

- i) Marine ecology
- ii) Water quality
- iii) Genome Analysis
- iv) Identification of anomalies in data, visualization/classification of high dimensional or hyper dimensional data in large databases ---Textile Plot
- v) Data reduction
- vi) Data structure and meta data good for analysis
- vii) Next generation software for working with data --- DandD Environment

Organising Committee

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