

## **Preface: Featured section on data mining and statistical science**

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The recent development of information technology enables us to access a wide variety of data through computer networks. Along with this development, the amount of data that are generated, collected and stored has been rapidly increasing, and the issue of how to analyze and utilize them is becoming more and more important. One potent approach is to apply data mining technology that enables us to ‘mine’ significant knowledge from a large amount of data.

We have dealt with many studies on data mining in various workshops in The Japanese Society for Artificial Intelligence. In response to the further broadening of research on data mining, we have newly started the domestic workshop “Data Mining and Statistical Mathematics (SIG-DMSM).” This workshop deals with data mining based on a statistical approach as well as machine learning, and aims to bring together machine learning researchers and statisticians to synthesize both approaches and to create new data mining technologies. We solicit papers addressing theoretical and methodological aspects of machine learning, statistical science, and other relevant fields, which contribute to understanding and development of data mining.

A series of international workshops on Data-Mining and Statistical Science (DMSS) has been organized every year since 2006 by co-locating with the SIG-DMSM. Highly qualified papers from all over the world have been invited to these workshops. The second DMSS (DMSS07) was held on October 5 and 6, 2007, at the Institute of Statistical Mathematics, Tokyo, Japan. A total of three invited talks and thirteen contributed talks were presented. This featured section of AISM welcomes any papers not limited to the presentations that appeared at the DMSS07 workshop, and contains four papers submitted for publication and reviewed under the regular reviewing procedure of AISM. We would like to thank the reviewers and all of the authors of the published

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