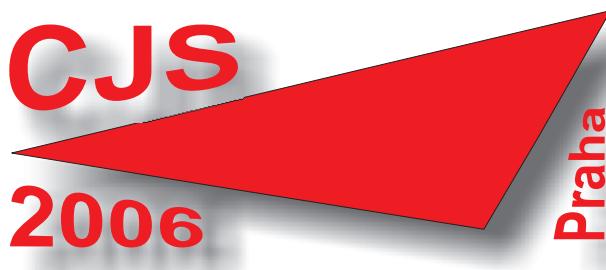


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Proceedings  
of  
**Czech–Japanese Seminar  
in Applied Mathematics 2006**

held in Prague on September 14–16, 2006



Editors  
Michal Beneš, Masato Kimura and Tatsuyuki Nakaki

The 21st Century COE Program  
*Development of Dynamic Mathematics*  
*with High Functionality*  
Faculty of Mathematics, Kyushu University

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## Preface

The third scientific colloquium *Czech-Japanese Seminar in Applied Mathematics 2006* took place on September 14-16, 2006 at the Faculty of Nuclear Sciences and Physical Engineering, Czech Technical University in Prague. It was organized by the Department of Mathematics, FNSPE CTU in Prague and by the Institute of Thermomechanics of the Czech Academy of Sciences and was devoted to the meeting of applied mathematicians and researchers from applied disciplines dealing with numerical solution of partial differential equations, mathematical modelling and numerical simulation of problems in technology, environment, biology and computer science. The meeting has been prepared in collaboration of the CTU in Prague, IT CAS, Comenius University in Bratislava and the Kyushu University in Fukuoka, Japan within the common activity *Czech and Slovak Twin Seminar in Applied Mathematics* between the Czech Technical University in Prague and Slovak Technical University in Bratislava in 2006. It represents a continuation of the successful series of common seminars: *Czech-Japanese Seminar in Applied Mathematics 2004* held in Prague, and *Czech-Japanese Seminar in Applied Mathematics 2005*, held in Kuju.

The proceedings contains peer reviewed articles which reflect fruitful atmosphere and interesting composition of topics of the meeting, whereas selected papers have been published in the journal *Kybernetika* in 2007.

The organizers gratefully acknowledge the support of the Czech Technical University in Prague through the internal grant No. CTU0617014 *Czech-Japanese Seminar in Applied Mathematics 2006*, for the support of the Ministry of Education, Youth and Sport of Czech Republic through the research project No. MSM 98:210000010 *Applications of Mathematics in Technical Sciences* and through the project No. LC06052 *Jindřich Nečas Center for Mathematical Modelling*, and for the support of the Kyushu University, Fukuoka through the 21st Century COE Program *Development of Dynamic Mathematics with High Functionality*.

Full information on the meeting as well as the proceedings are available at the address: <http://geraldine.fjfi.cvut.cz>