The 4th CREST-SBM International Symposium

"Collaboration between Mathematical Science and Clinical Medicine"

March 13th (Wednesday)

10:00-10:15 Opening Addresses

Yasumasa Nishiura (Tohoku University, Head of JST Mathematics Program) **Toshitake Kohno** (The University of Tokyo, Program coordinator of FMSP)

10:15-10:40 **Hiroshi Suito** (Okayama University/JST, Japan) Overview of the CREST project

10:40-11:40 **Olivier Pironneau** (Université Pierre et Marie Curie, France) **(Keynote Lecture)** Numerical Algorithms for Hemodynamics

11:40-13:30 Lunch

13:30-14:15 **Jun-ichi Okada** (The University of Tokyo, Japan) Patient Specific Simulation using *UT-Heart*

14:15-15:00 Ryo Torii (University College London, UK)

The application of Computational Biomechanics in Clinical Science - Aortic Root in Health, Disease and Post-operation

15:00-15:45 Irène Vignon-Clementel (INRIA, France)

Multiscale Blood and Airflow Simulations: Data and Numerical Challenges

15:45-16:00 Coffee break

16:00-16:45 **Yoshitaka Masutani** (The University of Tokyo Hospital, Japan)
On Detection of Anatomical Landmarks in CT Images: Toward Computational
Understanding of Medical Images

16:45-17:30 **Takuya Ueda** (St. Luke's International Hospital/JST, Japan) Mathematical Approach in Medical Imaging

18:00-20:00 Banquet

March 14th (Thursday)

10:00-10:45 **Pekka Neittaanmäki** (University of Jyväskylä, Finland) **(Keynote Lecture)** Sensing Skin - Hyperspectral Imaging Based Application to Delineate Skin Tumors

10:45-11:30 **Yannick Deleuze** (National Taiwan University, Taiwan) Modeling and Simulating in Acupuncture

11:30-13:30 Lunch

13:30-14:15 **Evangelos Makris** (National Center of Scientific Research, Greece)
Particle Transport and Deposition under High Frequency Oscillatory Ventilation
and Normal Breathing in a Physiologically Realistic Bifurcation

14:15-15:00 **Hirokazu Takagi** (Waseda University/JST, Japan) Prestress Prediction Technique for Arterial FSI Computations

15:00-15:15 Coffee break

15:15-16:00 **Kenji Takizawa** and **Shohei Asada** (Waseda University/JST, Japan) Space--Time Arterial FSI and Fluid Simulation Techniques

16:00-16:15 Closing