

2018 SJTU Workshop (Joint Seminar with JSPS Core-to-Core Program) on Medical Imaging and Computational Modeling in Cardiovascular and Pulmonary Diseases

(November 3-4, 2018, Shanghai Jiao Tong University, Shanghai, China)

ADVISORS: Zonglai Jiang, Shanghai Jiao Tong University
Hao Liu, Chiba University
Hideaki Haneishi, Chiba University

CHAIRS: Fuyou Liang, Shanghai Jiao Tong University
Yingxin Qi, Shanghai Jiao Tong University
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ACCOMMODATION:

Hotel: LeadingMen Collection Hotel

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VENUE: Room A1002, Ruth Mulan Chu Chao Building, School of Naval Architecture, Ocean and Civil Engineering, Shanghai Jiao Tong University

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PROGRAM:

November 3 (Saturday)

8:00 – 18:00 Registration (LeadingMen Collection Hotel)

18:30 – 21:00 Banquet (Room 303, Liuyuan at SJTU)

November 4 (Sunday)

8:55 – 9:00 **Welcome** – Fuyou Liang

SESSION I: Imaging and Modeling Methods in Aortic and Systemic Hemodynamics

Chair: Hao Liu

9:00 – 9:30 **Keynote:** *Multidimensional imaging and 4D flow MRI: the challenging path to clinical translation* (**Alex J Barker**, University of Colorado Anschutz Medical Campus, USA)

9:30 – 9:55 **Invited:** *Multiscale CVS modeling and clinical applications for fetus, infants, children and adolescents* (**Hao Liu**, Chiba University, Japan)

9:55 – 10:20 **Invited:** *Patient-specific numerical simulation of aortic blood flow based on CTA and PC-MRI data* (**Fuyou Liang**, Shanghai Jiao Tong University, China)

10:20– 10:30 Tea Break

SESSION II: Imaging and Modeling Methods in Coronary Hemodynamics

Chair: Fuyou Liang

10:30 – 11:00 **Keynote:** *Hemodynamics study on myocardial ischemia induced by coronary*

artery aneurysm (**Youjun Liu**, Beijing University of Technology, China)

11:00 – 11:25 **Invited:** *Computational fluid dynamic study of sequential coronary artery bypass grafting in the native coronary occlusion model: Distribution of flow and energy efficiency* (**Kaoru Matsuura**, Chiba University Hospital, Japan)

11:25– 13:00 **Lunch** (Jimulide Restaurant in SJTU Campus)

SESSION III: Experimental, Imaging and Modeling Methods in Pulmonary Disease

Chair: Hideaki Haneishi

13:00 – 13:30 **Keynote:** *Mechanically regulated pathological behavior of cells in asthma and tumor invasion* (**Linhong Deng**, Changzhou University, China)

13:30 – 13:55 **Invited:** *Computerized imaging diagnosis of pulmonary diseases with artificial intelligence* (**Shoji Kido**, Yamaguchi University, Japan)

13:55 – 14:20 **Invited:** *4D-MRI reconstruction of thoracoabdominal organs in free breathing and lung motion analysis* (**Hideaki Haneishi**, Chiba University, Japan)

14:20 – 14:30 Tea Break

SESSION IV: Experimental and Modeling Methods in Cardiovascular Biomechanics at Tissue and Cellular Levels

Chair: Xibaobo Gong

14:30 – 15:00 **Keynote:** *Numerical analysis of heat and oxygen transport in living tissue with embeded vasculature using immersed boundary method* (**Ying He**, Dalian University of Technology, China)

15:00 – 15:25 **Invited:** *Intercellular communication induced by mechanical stress modulates vascular remodeling* (**Yingxin Qi**, Shanghai Jiao Tong University, China)

15:25 – 15:50 **Invited:** *Soft tubular microfluidics for particle sorting and wearable sensors* (**Xiaobo Gong**, Shanghai Jiao Tong University, China)

15:50 – 15:55 **Closing Ceremony** – Hao Liu

15:55 – 16:15 **Visit to SJTU-CU ICRC**

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