

## GIMRT X ISS-“Kibo” Users’ Network X AIRC

### ~International Collaborative Research Platform on Ground and in Orbit~

Joint workshop by three programs, Global Institute for Materials Research, Tohoku (GIMRT),

“Kibo” Users’ Network of JAXA (ISS-“Kibo”) and

Aerospace Interdisciplinary Research Center of Tohoku University (AIRC)

Nov. 29, 2019/Day3 of “SMS 2019 and GIMRT User Meeting 2019”

#### Program

09:00-09:30	Registration (for Day3 participants)	*)ID
09:30-09:35	Welcome Address Prof. Koki Takanashi, Director of Institute for Materials Research(IMR), Tohoku Univ.	●
Session I: Activities of Three Programs (Chair: Prof. M. Takayanagi, IMR, Tohoku Univ.)		
09:35-09:55	GIMRT program-accelerating research collaborations among multiple cores Prof. Hiroyuki Nojiri, IMR, Tohoku Univ.	●
09:55-10:15	Utilization of International Space Station and Japanese Experiment Module “Kibo” Dr. Masaki Shirakawa, JEM Utilization Center, JAXA	●
10:15-10:35	Introduction of Aerospace Interdisciplinary Research Center (AIRC) Prof. Hiroki Nagai, Institute of Fluid Science (IFS), Tohoku Univ.	●
Session II: Research Plans and Outputs		
II-1: Materials and Physical Science (Chair: Takayanagi, M.)		
10:35-10:55	Magnetic Levitation and Magneto-Science Researches in HFLSM Dr. Kohki Takahashi, IMR, Tohoku Univ.	●
10:55-11:15	Research Infrastructures onboard ISS-"Kibo" for Materials Science Mr. Hideki Saruwatari, JEM Utilization Center, JAXA	●
11:15-11:35	Noncontact Thermophysical Property Measurements of High Temperature Melts by Electrostatic Levitation Furnaces Dr. Chihiro Koyama, JEM Utilization Center, JAXA	●
11:35-13:00	Lunch and JAXA Exhibition (Lobby, IMR)	
II-1: Materials and Physical Science (Continued)(Chair: Dr. M. Shirakawa, JEM Utilization Center, JAXA)		
13:00-13:20	Electrostatic levitation experiments in ISS for interfacial tension measurements between iron melt and molten oxide --INTERFACIAL ENERGY Project-- Prof. Masahito Watanabe, Gakushuin Univ.	●
13:20-13:40	Counterflow flame experiment under microgravity toward comprehensive combustion limit theory Prof. Kaoru Maruta, IFS, Tohoku Univ.	● ●
II-2: Life and Medical Science (Chair: Shirakawa, M.)		
(Move to 15:40-16:00)	Future tasks for plant space radiation research areas Prof. Jun Hidema, Graduate School of Life Science, Tohoku Univ.	● ●
13:40-14:00	JAXA Mice Experiment Dr. Dai Shiba, JEM Utilization Center, JAXA	●
14:00-14:20	Coffee Break	
II-3: Space Science and Infrastructure (Chair: Prof. Hiroyuki Nojiri, IMR, Tohoku Univ.)		
14:20-14:40	Metal 3D Printer for Space Technology Prof. Akihiko Chiba, IMR, Tohoku Univ.	● ●
14:40-15:00	Supercomputer Simulation of Atomic Scale Friction for Design of Sliding Materials Dr. Yusuke Ootani, IMR, Tohoku Univ.	●
15:00-15:20	Recent R&D Topics of wireless communications via satellites Prof. Noriharu Suematsu, Research Institute of Electrical Communication, Tohoku Univ.	●
15:20-15:40	Space and solar system explorations and potential links to material sciences Prof. Yasumasa Kasaba, Planetary Plasma and Atmospheric Research Center, Tohoku Univ.	●
15:40-16:00	II-2/Future tasks for plant space radiation research areas/J. Hidema	
16:00-16:20	Coffee Break	
16:20-16:55	Session III: Discussion (Moderator: Takayanagi, M.)	
16:55-17:00	Closing Remark Prof. Shigeru Obayashi, Director of Institute of Fluid Science, Tohoku Univ.	●
17:00	Adjourn	

\*) Identification of participating program, ●; GIMRT/IMR, ●; ISS-“Kibo”, ●; AIRC

Each presentation time includes 3 min. Q/A and discussion.

Language; Japanese and English allowed