

Report on Joint Symposium of School of Science & WPI-ICReDD in Hokkaido Univ

■ Conference Name

Joint Symposium of School of Science & WPI-ICReDD in Hokkaido Univ

■ Sponsors

Institute for Chemical Reaction Design and Discovery (WPI-ICReDD)

School of Science, Hokkaido University

Japan Science and Technology Agency

■ Date & Time

Date: Dec. 10th (Thu), 2020

Time: 13:00~17:30

■ Place

Web conference (Zoom)

■ Participants

Registered participants: 116

On line participants: 91

■ Contents

Five professors from different fields (Mathematics, Physics, Chemistry, Biological Science, Earth, and Planetary Science) of the School of Science and four researchers from ICReDD were invited as speakers to give lectures in English, aiming at new development of interdisciplinary research based on exchange of information between researchers of ICReDD and the School of Science. They had meaningful presentations with lively question and answer sessions. The speakers are as follows.

- 1) Tatsuya Yanagisawa (Associate Professor), Department of Physics, School of Science
- 2) Ayako Shinozaki (Assistant professor), Department of Earth and Planetary Sciences, School of Science
- 3) Hiroki Hayashi (Specially Appointed Assistant Professor), Experimental Science, WPI-ICReDD/ERATO
- 4) Ronald Lazo Reyes (Specially Appointed Assistant Professor), Experimental Science, WPI-ICReDD
- 5) Yusuke Ishigaki (Assistant Professor), Department of Chemistry, School of Science
- 6) Hirotohi Kuroda (Associate Professor), Department of Mathematics, School of Science
- 7) Pavel Sidorov (Specially Appointed Assistant Professor), Information Science, WPI-ICReDD
- 8) Shigeyuki Koshikawa (Associate Professor School of Science), Department of Biological Sciences, School of Science
- 9) Cihan Ozen (Postdoctoral Fellow), Computational Science, WPI-ICReDD/ERATO

Schedule

13:00 – 13:10	Opening remarks	Prof. Satoshi Maeda, Director, WPI-ICReDD Prof. Takeo Horiguchi, Dean, Faculty of Science
13:10	Session 1 (Chair: Yu Harabuchi) 20 min talk and 5 min discussion	
13:10 – 13:35	Tatsuya Yanagisawa (Department of Physics, School of Science)	“Research on the Formation and Ordering of the Augmented Multipoles via Ultrasonic Measurements”
13:35 – 14:00	Ayako Shinozaki (Dep. of Earth and Planetary Sciences, School of Science)	“Effect of Pressure and Temperature on the Chemical Reactions of Aromatic Compounds”
14:00 – 14:25	Hiroki Hayashi (Experimental Sciences, WPI-ICReDD/ERATO)	“Quantum Chemical Calculation-Aided Reaction Development”
14:25	Intermission 10 min	
14:35	Session 2 (Chair: Hiroki Hayashi)	
14:35 – 15:00	Ronald Lazo Reyes (Experimental Sciences, WPI-ICReDD)	“Strategic Construction of Molecular Complexity via Asymmetric Remote C–H Borylation: Building Structural Diversity from Common Feedstock Chemicals”
15:10 – 15:35	Yusuke Ishigaki (Department of Chemistry, School of Science)	“Highly Strained Compounds: Switchable Redox Properties and Flexible C–C Bonds”
15:35 – 16:00	Hirotohi Kuroda (Department of Mathematics, School of Science)	“Characterization of Structure by Persistent Homology”
16:00	Intermission 10 min	
16:10	Session 3 (Chair: Yu Harabuchi)	
16:10 – 16:35	Pavel Sidorov (Information Sciences, WPI-ICReDD)	“Discovery of Novel Chemical Reactions by Deep Generative Recurrent Neural Network”
16:35 – 17:00	Shigeyuki Koshikawa (Dep. of Biological Sciences, School of Science)	“Developmental Regulation and Evolution of Color Pattern in Fruit Flies”
17:00 – 17:25	Cihan Ozen (Computational Sciences, WPI-ICReDD/ERATO)	“Mechanistic Studies on Novel Chemical Reactions by AFIR”
17:25	Closing remarks	Prof. Yu Harabuchi, Assistant Prof., School of Science