



WASEDA University



TOP GLOBAL
UNIVERSITY
JAPAN

The 1st Workshop on Active Matter for Soft Robotics

March

12

Tue

2019

Please register in advance
for participation
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[https://www.waseda.jp/inst/sgu/news-en/
2019/02/28/4871/](https://www.waseda.jp/inst/sgu/news-en/2019/02/28/4871/)

Venue

Conference Room No.2, 55N Building,
Nishi-Waseda Campus, Waseda University

[Host Organization]

The Unit for Energy and Nanomaterials, Top Global University Project, Waseda University

[Co-host Organization]

The Unit for Frontier of Embodiment Informatics: ICT and Robotics, Top Global University Project, Waseda University

Leading Graduate Program in Science and Engineering: Energy · Next, Waseda University

Graduate Program for Embodiment Informatics: System Next, Waseda University

Research Project on the Energy · Next, Waseda Research Institute for Science and Engineering, Waseda University

Research Project on the Energy and Nanomaterials, Waseda Research Institute for Science and Engineering, Waseda University

Research Organization for Nano & Life Innovation, Waseda University

Global Biomedical Green Science Institute, Organization for Regional and Inter-regional Studies, Waseda University

Program

[Session I] Chairperson: Prof. Toru Asahi

(Research Project Leader of the Energy · Next and Energy and Nanomaterials/Program Coordinator of Leading Graduate Program in Science and Engineering, Waseda Univ.)

10:00-10:05	Opening Address	Prof. Hideko Koshima (Research Organization for Nano & Life Innovation, Waseda Univ.)
10:05-10:15	"Introduction of TGU Project and the Unit for Energy and Nanomaterials"	Prof. Takayuki Homma (Dean of Academic Affairs Division/Unit Leader of Energy and Nanomaterials, TGU Program, Waseda Univ.)
10:15-10:55	<i>Invited Lecture</i> "Tunable Stiffness Mechanisms and Swelling Soft Actuator in Soft Microrobotics"	Prof. Pierre Lambert (TIPs, Université libre de Bruxelles)
10:55-11:25	"A Shape-memory Alloy Wire and Its Physical Properties as Soft Actuators and Sensors"	Prof. Hideyuki Sawada (Dept. of Appl. Phys., Waseda Univ.)
11:25-12:05	<i>Invited Lecture</i> "Hierarchical Chemo-Mechanical Encoding of Multi-Responsive Hydrogel Actuators via 3D printing"	Prof. Jean-Marie Raquez (Center for Innovation and Research in Materials and Polymers, Université de Mons)
12:05-12:45	<i>Special Lecture</i> "Recent and Future AI Engineering and Its Applications to Robotics"	Prof. Tetsuya Ogata (Associate Dean of Research Promotion Division / Dept. of Intermedia Art & Sci., Waseda Univ.)
12:45-14:00	Lunch Break	

[Session II] Chairperson: Prof. Pierre Lambert (Université libre de Bruxelles)

14:00-14:30	"Design of Photoresponsive Siloxane-based Hybrid Nanomaterials"	Prof. Atsushi Shimojima (Dept. of Appl. Chem., Waseda Univ.)
14:30-15:00	"Self-sustained Motility of BZ Gels"	Assoc. Prof. Shingo Maeda (Dept. of Eng. Sci. and Mechan., Shibaura Inst. of Tech.)
15:00-15:30	"Printed Nanofilms for Bio-integrated System"	Assoc. Prof. Toshinori Fujie (Sch. of Life Sci. Tech., Tokyo Tech.)
15:30-16:00	"Paper Mechatronics: Activating Papers by Printing Components"	Assist. Prof. Hiroki Shigemune (Dept. of App. Phys., Waseda Univ.)
16:00-16:20	Break	

[Session III] Chairperson: Prof. Hideyuki Sawada (Waseda Univ.)

16:20-16:35	"Mechanically Responsive Crystals induced by Light and Heat"	Mr. Takuya Taniguchi (Dept. of Advanced Sci. and Eng., Waseda Univ.)
16:35-16:50	"An Information Display on Face Using Micro-vibration Patterns Generated by SMA Wires"	Mr. Chunhao Song (Dept. of Appl. Phys., Waseda Univ.)
16:50-17:05	"Thermal Phase Transition and Mechanical Motion of a Photo-chromic Salicylideneaniline Crystal"	Mr. Yuki Hagiwara (Dept. of Life Sci. and Medical Biosci., Waseda Univ.)
17:05-17:20	"Deformable and Soft Motor"	Mr. Ayato Minaminosono (Dept. of Eng. Sci. and Mechan., Shibaura Inst. of Tech.)
17:20-17:35	"Design for Applying Soft Materials to Mechanical Systems"	Mr. Shota Miyake (Dept. of Modern Mechan. Eng., Waseda Univ.)
17:35-18:35	Networking with Poster Viewing	
18:35-18:40	Closing Address	Prof. Shigeki Sugano (Dean of Faculty of Creative Sci. & Eng./Unit Leader of Frontier of Embodiment Informatics, TGU Program/Program Coordinator of Graduate Program for Embodiment Informatics, Waseda Univ.)