

The 68th Conference on Theoretical and Applied Mechanics

IUTAM Session (Asian UTAM Initiative Session)

May 16, 2026,
Kashiwa Campus, The University of Tokyo, Japan

9:00-9:10 Opening Remarks

Session 1 (9:10-10:25) Chair: **Shu TAKAGI** (The University of Tokyo)

9:10-9:40 **Hyungmin PARK** (Seoul National University)
"When deformable bubble passes through a miscible liquid-liquid interface"

9:40-10:10 **Yoshiyuki TAGAWA** (Tokyo University of Agriculture and Technology)
"Imaging Hidden Mechanics in Impulsive Multiphase and Soft-Matter Systems"

10:10-10:40 **Ettore BARBIERI** (JAMSTEC)
"When Meshing Fails: A Meshless Multiphysics Framework for Thermoelastic Strain-Driven Electrical Percolation in Polymer Composites"

Session 2 (11:00-12:30) Chair: **Simon SONG** (Hanyang University)

11:00-11:30 **Yoko YAMANISHI** (Kyushu University)
"Experimental Insights into Gene Delivery Induced by Mechanical and Electrical Fields"

11:30-12:00 **Gilho YOON** (Hanyang University)
"Topology Optimization for Multiphysics Systems"

12:00-12:30 **Shu Takagi** (The University of Tokyo)
"On the Horizontal Bubble Clustering"

Lunch Break (12:30 – 15:10)

Session 3 (15:10-17:10) Chair: **Heuy Dong KIM** (Andong National University)

15:10-15:40 **Supreet Singh BAHGA** (Indian Institute of Technology Delhi)
"Physics and Applications of Electrohydrodynamic Jet Printing"

15:40-16:10 **Kazuya TATSUMI** (Kyoto Institute of Technology),
"Insights into Electrical and Thermal Pathways in Network-Structured Materials via Thermoreflectance Imaging"

16:10-16:40 **Xiaoling WANG** (University of Science and Technology Beijing)
"Phase Transitions in Biofilms"

16:40-17:10 **Takashi MATSUSHIMA** (Tsukuba University),
"Elasticity, plastic compression and shear strength of soil based on granular cell mechanics"

17:20-17:50 Panel Discussion toward AUTAM

Chair: Kikuo KISHIMOTO (Board of Director, IUTAM)

Panelists: Heuy Dong KIM, Yoko YAMANISHI, Simon SONG, Shu TAKAGI

17:50-17:55 Closing Remarks