The 2nd MDA workshop

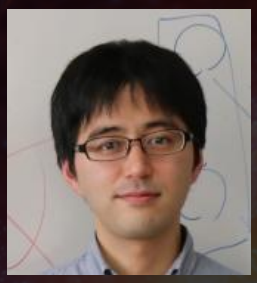
Interfaces of control theory, biology, and machine learning

This workshop aims to foster interdisciplinary discussions on the mathematical principles underlying biological regulation, at the interface of control theory, biology, and machine learning.

Invited speakers

Ankit Gupta
ETH Zurich

Shuhei Horiguchi
Kanazawa Univ.



Nen Saito
Univ. of Tsukuba

Date & Venue

Feb. 10th, 2026 14:00 - 18:00

Venue: 3A203, Area 3

Program

14:00 - 14:05	"Welcome address" by Yuji Hirono
14:05 - 15:05	"Embracing Randomness: Stochastic Methods for Understanding and Engineering Biological Systems" by Ankit Gupta
15:10 - 15:50	"Stochastic Optimal Control of Biological Population Dynamics under Extinction Risk" by Shuhei Horiguchi
16:00 - 16:40	"Mathematical modeling of cell shape dynamics" by Nen Saito
16:50 - 17:10	"Coordinate-Preserving Model Reduction for Control-Affine Systems" by Yoshizumi Kotani
17:10 - 17:30	"Design principles of temporal encoding in signaling system" by Thoma Itoh
17:30 - 17:50	"Small-Sample Machine Learning for Inferring Motor Control Breakdown in Parkinsonian Walking" by Mehedi Hasan
18:00 -	Social dinner (free of charge)

Details/registration

Organized by

Mathematics, Data Science and AI Education Program

MDA Advanced Human Resource Development Program

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