

**Invited Talk Abstract**

ICOML 2026 | July 27–29, 2026

**Robust and Flexible Reward Modeling in Reinforcement Learning****Masashi Sugiyama***RIKEN/The University of Tokyo*

<b>Date</b>	July 27, 2026
<b>Time</b>	10:00–10:30
<b>Session</b>	Session 1
<b>Venue</b>	Department of Mathematics, National Taiwan Normal University, Taipei, Taiwan

**Abstract**

Reinforcement learning (RL) has achieved remarkable success in robotics, games, and language model post-training, where reward signals are essential for effective agent training. In this talk, I will present our recent research on advanced reward modeling. This includes robustifying RL through transfer and weakly supervised learning, coping with interval-based rewards, and exploring diverse reward aggregation frameworks that move beyond the traditional discounted sum.