Recent Presentations

- Invited talk, Development of Compositionality through Interactive Learning of Language and Action of Robots Using Free Energy Principle,   March 24, 2025,   Colloquium Talk, Department of Informatics, University of Hamburg, video

- Invited talk, Development of Compositionality through Interactive Learning of Language and Action of Robots Using Free Energy Principle, March 18, 2025, Italian Institute of Technology, Genova

- Invited talk, Synergizing Habits and Goals with Variational Bayes. Oct. 9th, 2024, International Research Center for Neurointelligence, The University of Tokyo

- Invited talk, Cognitive Neurorobotics Studies Extending the Free Energy Principle. *Simulation of Adaptive Behavior (SAB2024)*, Sept. 10, 2024, Irvine, California, The USA

- Keynote speech, Tani, J. Toward Understanding Structural Basis for Autonomy of Consciousness: A Synthetic Neurorobotics Study. *Association for the Scientific Study of Consciousness 27 (ASSC-27)*, Tokyo, July 2, 2024.

- Invited lecture, Tani, J. Cognitive Neurorobotics Studies Using the Free Energy Principle. Department of Mechano-Informatics. Graduate School of Information Science and Technology, University of Tokyo, April 24, 2024.

- Keynote address, Tani, j. Exploring robotic minds using the free energy principle. *AWARE-AI NSF Research Traineeship Program*, January 16th, 2024, Online.

- Keynote speech, Tani, J. Cognitive Neurorobotics Studies Utilizing the Free Energy Principle: Towards an Ontological Understanding of the Mind. *ALIFE 2023*, Sapporo, July 24, 2023. video

- Invited talk, Tani, J. Exploring robotic minds using the free energy principle. *Brain & Neuroscience Workshop 2023* (Online) - Microsoft Research, June 20, 2023.

- Invited talk, Tani, J. Cognitive Science Colloquium, Univ. of Tubingen, May 25, 2023.

- Invited talk, Tani, J. Doctoral Seminar Talk at Technical University of Munich 2023 May 22, 2023.

- Invited talk, Tani, J. Exploring robotic minds by extending the framework of predictive coding and active inference. The Center for Robotics and Neural Systems (CRNS) (Online), University of Plymouth, UK, February 15, 2023. VIDEO

- 招待講演, 谷淳, 製造科学技術センター、異分野技術シーズ「意見交換会」*自由エネルギー 原理で作動する認知脳ロボット* (Online), January 17, 2023

- Invited talk, Tani, J. Goal-directed Planning and Goal Understanding of Robots by Extended Active Inference. *RoboTac 2022*, The IROS 2022 workshop, Kyoto, October 23, 2022.

- Invited talk, Tani, J. Lifelong Learning of High-level Cognitive and Reasoning Skills. I*ROS 2022 workshop*, Kyoto, October 23, 2022.

- Invited talk, Tani, J. Cognitive Neurorobotics Studies Using the Frameworks of Predictive Coding and Active Inference. *International Symposium on Artificial Intelligence and Brain Science 2022*, Okinawa Institute of Science and Technology Graduate University, Okinawa, Japan, July 5, 2022. VIDEO

- Invited talk, Tani, J. Neurorobotics experiments on goal-directed planning based on active

inference. *The Fifth International Workshop on Intrinsically Motivated Open-ended Learning IMOL 2022* (Online), Max Planck Institute for Intelligent Systems, Tübingen, Germany, April 4-6, 2022.

- Invited talk, Tani, J. Predictive coding and active inference framework for cognitive neurorobotics. *ECoGs seminar* organized by Tom Froese (Online), February 28, 2022. VIDEO

- Invited talk, 谷淳、ロボット実験を通して考える人間の認知と意識について, *OIST-Keizai Doyukai Joint Seminar* (Online), February 28, 2022.

- Plenary talk, Tani, J. Cognitive Neurorobotics Study Using the Free Energy Principle. *FEP workshop* (Online), December 14, 2021.

- Invited talk, Tani, J. Robotic Minds from Predictive Coding and Active Inference. Graduate School, University of Tokyo, Graduate Course: *Brain Information Processing Systems*, (Online), December 10, 2021.

- Tani, J. Studies on cognitive neurorobotics using the framework of predictive coding and active inference. *RIKEN-OIST Joint Symposium, Series 2, Neurosciences and AI/Data science, Kinds of Minds - What is thinking?* (Online), October 6, 2021.

- Invited talk, Tani, J. Cognitive neurorobotic self in the shared world. *International Conference on Philosophy of Information ICPI 2021* (Online), September 18, 2021.

- Keynote talk, Tani, J. Exploring robotic minds using the concepts of predictive coding and active inference. *IEEE ICDL 2021*, Beijing, China (Online), August 28, 2021. VIDEO

- Invited talk, Tani, J. An analysis of meta-level cognitive processes of a variational recurrent neural network model when acting with the environment. *ICDL Workshop StEPP'21* (Online), August 22, 2021.

- Invited talk, Tani, J. Exploring robotic minds using predictive coding and active inference frameworks. *Cognitive Informatics at Université du Québec à Montréal* (Online), April 1, 2021.

- Invited talk, Tani, J. Understanding Embodied Cognition through Free Energy Minimization. *2021 International Workshop on Embodied Intelligence* (Online), March 24, 2021. VIDEO

- Invited talk, Tani, J. Cognitive Neurorobotics Study Using Predictive Coding and Active Inference. *Neuroengineering Symposium* (Online), The Technical University of Munich, Germany, March 11, 2021.

- Invited talk, Tani, J. Exploring minds using predictive coding and active inference frameworks. *1st SMILES workshop 2020* (Online), November 2, 2020.

- Invited talk, Tani, J. Cognitive Neurorobotics Study and Its Possible Applications to Rehabilitation. *The 2nd RENEW Workshop: Integrating Sensor Information for Optimal Rehabilitation* (Online), October 20, 2020.

- Invited talk, Tani, J. An account of the development of cognitive minds using predictive coding and active inference frameworks. *University of California Irvines CogSci colloquium* (Online), October 2, 2020.

- Invited talk, Tani, J. Exploring robotic minds. *Mind & Life Europe summer research institute 2020, 'Grounding Knowledge in Uncertainty'* (Online), Aug.10 -15, 2020. VIDEO

- Keynote talk, Tani, J. Cognitive Neurorobotics Study Using Predictive Coding and Active Inference Framework. *icra2020 rain PIL Workshop – virtual, New advances in brain-inspired*

perception, interaction and learning, May 31, 2020.

- Invited talk, Tani, J. A Proposal of a Novel Variational Bayes Recurrent Neural Network Model Under Predictive Coding and Active Inference Frameworks. *Consciousness Club Tokyo*, Tokyo, Japan, February 7, 2020. VIDEO

- Invited talk, Tani, J. Cognitive Neurorobotics Study Using Frameworks of Predictive Coding and Active Inference. BMW Group, Munich, Germany, December 17, 2019.

- Invited talk, Institute for Cognitive Systems Technische Universität München, Munich, Germany, December 18, 2019.

- Invited talk, Tani, J. Actions, Symbols and Selves as Self-Organizing Dynamic Phenomena: a View from Neurorobotics study. *CHAIN INTERNATIONAL SYMPOSIUM Adventures in Consciousness Science: Exploring the Crossover between Philosophy, Neuroscience, AI, and Robotics*, Sapporo, Japan, November 10, 2019.

- Invited talk, Tani, J. An account of the development of cognitive minds using predictive coding and active inference frameworks. *ATR Brain Information Communication Research Laboratory Group Symposium*, Kyoto, Japan, October 30, 2019.

- Keynote talk, Tani, J. Accounting social cognitive mechanisms by the framework of predictive coding and active inference: a synthetic experimental study using robotics interaction platforms. *7th International Conference on Human-Agent Interaction (HAI2019)*, Kyoto, Japan, October 8, 2019.

- Invited talk, Tani, J. Emergence in Neurorobotics Experimental Studies. *Riken Robotics Retreat*, Kyoto, Japan, September 13, 2019.

- Invited talk, Tani, J. ロボット構成論的アプローチで考える身体的自己と物語的自己について，*第19回K フォーラム*, Takayama, Japan, August 23, 2019.

- Invited talk, Tani, J. How can compositionality develop through self-exploration and supervised tutoring? *Fourth International Workshop on Intrinsically-Motivated Open-ended Learning (IMOL2019)*, Frankfurt, Germany, July 1-3, 2019.

- Invited talk, Tani, J. Generating goal-directed planning images using frameworks of predictive coding and active inference: Agency and object constancy. *NII Shonam Meeting, Language as Goal-Directed Sequential Behavior: Computational Theories, Brain Mechanisms, Evolutionary Roots*, Shonan, Japan, May 21, 2019.

- Invited talk, Tani, J. Accounts of the development of embodied cognition using predictive coding and active inference frameworks. *Marcus Wallenberg International Symposium on Affective and Developmental Processes in Cognitive and Autonomous Systems - Augmenting Deep Learning using Neural Dynamics and Predictive Coding*, Gothenburg, Sweden, May 6, 2019.