





# The 5th International Symposium of the Institute for AI and Beyond



## Next Generation AI: The Next Breakthroughs and Potentials

### Program

Language: English / Japanese (Simultaneous interpretation offered)

Opening Remarks 14:00-14:15

**Teruo Fujii** President, The University of Tokyo

**Junichi Miyakawa** President and CEO of SoftBank Corp.

Introduction of The Beyond AI Joint Project 14:15-14:25

**Masami Hagiya** Director, Institute for AI and Beyond, The University of Tokyo

Purpose of the Event 14:25-14:35

**Tatsuya Harada** Professor, Research Center for Advanced Science and Technology, The University of Tokyo

1st Session Keynote Speeches

### AI and Civilization - Future Perspectives 14:35-15:00

**Shun-ichi Amari** Specially Appointed Professor, Teikyo University, ACRO /  
Professor-Emeritus, The University of Tokyo / Honorary Science Advisor, RIKEN

### Robotic Foundation Models 15:00-15:25

**Sergey Levine** Associate Professor, UC Berkeley, EECS

### Empathetic Reasoning, Fast and Slow: Shaping AI's Mind 15:35-16:00

**Nancy F. Chen** Multimodal Generative AI Group Leader & AI for Education Programme Head, A\*STAR

### The Future of Collective Intelligence and Meta Evolution for Foundation Models 16:00-16:25

**David Ha** Representative Director / Co-Founder and CEO of Sakana AI

2nd Session Panel Discussion 16:45-17:45

**Moderator** **Tatsuya Harada** Professor, Research Center for Advanced Science and Technology, The University of Tokyo

**Panelists** **Shun-ichi Amari** Specially Appointed Professor, Teikyo University, ACRO /  
(Japanese order) Professor-Emeritus, The University of Tokyo / Honorary Science Advisor, RIKEN

**Yoichi Ochiai** Director of Research and Development Center for Digital Nature, The University of Tsukuba

**Masashi Sugiyama** Professor, Graduate School of Frontier Sciences, The University of Tokyo

**Akiko Takeda** Professor, Graduate School of Information Science and Technology, The University of Tokyo

**Yukino Baba** Associate Professor, Graduate School of Arts and Sciences, The University of Tokyo

Closing Remarks 17:50-17:55

**Masami Hagiya** Director, Institute for AI and Beyond, The University of Tokyo



**Yukie Nagai** Project Professor, International Research Center for Neurointelligence, The University of Tokyo





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## Opening Remarks

**Teruo Fujii** President, The University of Tokyo

Dr. Teruo Fujii is the 31st President of the University of Tokyo. Prior to taking the President's office in April 2021, he was Executive Vice President in charge of finance and external relations for the university. He also served as the Director General of the Institute of Industrial Sciences (IIS) of the university from 2015 to 2018. He received his Ph.D. in engineering from UTokyo in 1993 and held research positions at IIS and RIKEN prior to becoming a professor of IIS in 2007. His research specializes in applied microfluidics systems and underwater technology.



## Opening Remarks

**Junichi Miyakawa** President and CEO of SoftBank Corp.

Junichi Miyakawa is President and CEO at SoftBank Corp. (since 2021), and also serves as Director of A Holdings Corporation. Miyakawa's past positions include Technical Chief Operating Officer at US-based Sprint Corporation (2014), Director, Executive Vice President and CTO of SoftBank Mobile Corp. (now SoftBank Corp.) (2007), Director of SoftBank BB Corp. (now SoftBank Corp.) (2003) and Representative Director and President of Nagoya Metallic Communications Corp. (now SoftBank Corp.) (2000). Prior to these positions, in 1991 he became Representative Director & President of KK Momotaro Internet.



## Introduction of The Beyond AI Joint Project / Closing Remarks

**Masami Hagiya** Director, Institute for AI and Beyond, The University of Tokyo

After receiving M.Sc. from the University of Tokyo, Masami Hagiya worked for Research Institute for Mathematical Sciences, Kyoto University, and received a Doctor of Science in 1988. He was a professor at Department of Computer Science, Graduate School of Information Science and Technology, the University of Tokyo, from 2001 to 2022. He has been working in the fields of software science and engineering, including theory of programming languages, software testing and formal verification. He is also working in the fields of natural computing (computing by natural phenomena), including DNA computing. He was appointed as the Director of Institute for AI and Beyond in April 2021.



## Purpose of the Event / Moderator

**Tatsuya Harada** Professor, Research Center for Advanced Science and Technology, The University of Tokyo

Tatsuya Harada is a Professor in the Research Center for Advanced Science and Technology at the University of Tokyo. His research interests center on visual recognition, machine learning, and intelligent robot. He received his Ph.D. from the University of Tokyo in 2001. He is also a team leader at RIKEN AIP and a vice director of Research Center for Medical Bigdata at National Institute of Informatics, Japan.



## Keynote Speech / Panelist

**Shun-ichi Amari** Specially Appointed Professor, Advanced Comprehensive Research Organization (ACRO), Teikyo University / Professor-Emeritus, The University of Tokyo / Honorary Science Advisor, RIKEN

Born in Tokyo on January 3, 1936. Amari has a wide range of interests in mathematical engineering, and has researched topics such as circuit network theory using topological geometry, continuum mechanics using differential geometry (physical space theory), information theory, learning and pattern recognition, and neural network theory.

In recent years, he has proposed the field of information geometry, which provides a common theoretical foundation for statistics, systems theory, information theory, and other such fields, and is building a system of information mathematics based on this. He is internationally known as a pioneer in the field of AI research for these achievements.

Amari has received numerous awards, including the Japan Academy Prize; the Order of the Sacred Treasure, Gold Rays with Neck Ribbon; Person of Cultural Merit; and the Order of Culture.



## Keynote Speech

**Sergey Levine** Associate Professor, UC Berkeley, EECS

Sergey Levine received a BS and MS in Computer Science from Stanford University in 2009, and a Ph.D. in Computer Science from Stanford University in 2014. He joined the faculty of the Department of Electrical Engineering and Computer Sciences at UC Berkeley in fall 2016. His work focuses on machine learning for decision making and control, with an emphasis on deep learning and reinforcement learning algorithms. Applications of his work include autonomous robots and vehicles, as well as applications in other decision-making domains. His research includes developing algorithms for end-to-end training of deep neural network policies that combine perception and control, scalable algorithms for inverse reinforcement learning, deep reinforcement learning algorithms, and more.



## Keynote Speech

**Nancy F. Chen** Multimodal Generative AI Group Leader & AI for Education Programme Head, A\*STAR

Nancy F. Chen leads AI at A\*STAR, heading the Multimodal Generative AI group and AI for Education programme. A serial best paper award winner, her AI research spans healthcare, neuroscience, social media, education, and forensics. Dr. Chen's multilingual tech led to commercial spin-offs and adoption by Singapore's Ministry of Education. She is Program Chair for NeurIPS 2025, ICLR 2023, APSIPA Governor (2024–2026), IEEE SPS Distinguished Lecturer (2023–2024), ISCA Board Member (2021–2024), and Singapore's 100 Women in Tech (2021). Previously, she worked at MIT Lincoln Lab during her PhD at MIT and Harvard.



# The 5th International Symposium of the Institute for AI and Beyond



## Keynote Speech

**David Ha** Representative Director / Co-Founder and CEO of Sakana AI

David Ha is the Co-founder CEO of Sakana AI. He previously worked as a Research Scientist at Google, leading the Google Brain Research team in Japan. His research interests include complex systems, self-organization, and creative applications of machine learning. Prior to joining Google, he was a derivatives trader, serving as Managing Director and head of interest rates trading at Goldman Sachs in Japan. He obtained his undergraduate degree in engineering science from the University of Toronto, and a PhD from the University of Tokyo.



## Panelist

**Yoichi Ochiai** Director of Research and Development Center for Digital Nature, The University of Tsukuba

He studied media arts at the University of Tsukuba and received his PhD from the Graduate School of Interdisciplinary Information Studies at the University of Tokyo. He is currently Director of the Digital Nature Development Research Center at the University of Tsukuba / Associate Professor of Library, Information and Media Studies and Chairman and CEO of Pixie Dust Technologies, Inc. He advocates for "Digital Nature," the fusion of computation and nature, aiming to contribute to the realization and social implementation of a new natural environment reconstructed through the harmonious integration of computational and non-computational resources.



## Panelist

**Masashi Sugiyama** Professor, Graduate School of Frontier Sciences, The University of Tokyo

Masashi Sugiyama received his Ph.D. in Computer Science from Tokyo Institute of Technology in 2001. After working as an assistant and associate professor at the same institute, he became a professor at the University of Tokyo in 2014, and has concurrently served as the Director of the RIKEN Center for Advanced Intelligence Project since 2016. His research interests include theories and algorithms of machine learning. He received the Japan Academy Medal in 2017 and the Commendation for Science and Technology by the Minister of Education, Culture, Sports, Science and Technology in 2022. He published "Machine Learning from Weak Supervision" from MIT Press in August 2022.



## Panelist

**Akiko Takeda** Professor, Graduate School of Information Science and Technology, The University of Tokyo

Akiko Takeda received the Doctor of Science degree in information science from the Tokyo Institute of Technology in 2001. She has been a professor at the Graduate School of Information Science and Technology, the University of Tokyo, since 2018 after working at Toshiba Corporation, Tokyo Institute of Technology, Keio University, the University of Tokyo, and the Institute of Statistical Mathematics. Since 2016, she has also been a team leader at the Center for Advanced Intelligence Project, RIKEN. Her area of expertise is mathematical optimization, and she has recently been studying algorithms for optimization problems that appear in the field of machine learning.



## Panelist

**Yukino Baba** Associate Professor, Graduate School of Arts and Sciences, The University of Tokyo

Yukino Baba is an Associate Professor in the Graduate School of Arts and Sciences at University of Tokyo. Her research interests are in Human-AI Interaction, Human-in-the-Loop Machine Learning, and Human Computation. Prior to joining the faculty at University of Tokyo, she was an Associate Professor at University of Tsukuba from 2018 to 2022, Assistant Professor at Kyoto University from 2015 to 2018, and a postdoctoral fellow at National Institute of Informatics (2014-2015) and The University of Tokyo (2012-2014). She received her Ph.D. from University of Tokyo in 2012.



## MC

**Yukie Nagai** Project Professor, International Research Center for Neurointelligence, The University of Tokyo

Yukie Nagai earned her Ph.D. in Engineering from Osaka University in 2004, after which she worked at the National Institute of Information and Communications Technology, Bielefeld University, and Osaka University. Since 2019, she has been leading the Cognitive Developmental Robotics Lab at the University of Tokyo. Her research encompasses cognitive developmental robotics, computational neuroscience, and assistive technologies for developmental disorders. Dr. Nagai employs computational methods to investigate the underlying neural mechanisms involved in social cognitive development. In acknowledgment of her work, she received the titles of "35 Women in Robotics Engineering and Science" in 2022 and "Forbes JAPAN Women In Tech 30" in 2024, among other recognitions.

