

# International Conference on Nonlinear Science and Medicine 2025

November 19-21, 2025

## Tetsumon-Clinical Hall

South Clinical Research Bldg.,  
UTokyo, Hongo, Tokyo, Japan



**REGISTER NOW**



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### Chair Hideyuki Suzuki

- 9:20-9:30**     **Gen Sobue (Online)**     Aichi Medical University
- 9:30-9:40**     **Kazuyuki Aihara**     The University of Tokyo  
Comprehensive Mathematical Understanding of the Complex Control System between Organs and Challenge for Ultra-Early Precision Medicine
- 9:40-10:10**     **Shingo Iwami**     Nagoya University  
Mathematical Model-driven and Data-driven Quantitative Data Analysis
- 10:10-10:40**     **Naoki Masuda**     University of Michigan  
Mathematical Modeling and Data Analysis for Understanding and Intervening into Resilience, Robustness, and Cascading Failures in Inter-organ Networks

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Coffee Break

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- 10:55-11:25**     **Kiyoto Kasai**     The University of Tokyo  
Research on the Application of Mathematical Analysis Methods to Understand Pathophysiology of Psychiatric Disorders
- 11:25-11:45**     **Yukinori Okada**     Osaka University  
Integrative Data Analysis based on Statistical Genetics

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Lunch Break

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### Chair Tomoya Takeuchi

- 13:00-13:30**     **Shigeru Saito**     University of Toyama  
Research for Pre-Disease Science on the Inter-organ Network as the Complex Control System (I)
- 13:30-14:00**     **Shusaku Hayashi**     Kyoto Pharmaceutical University  
Research for Pre-Disease Science on the Inter-organ Network as the Complex Control System (II)
- 14:00-14:30**     **Jun-ichi Imura**     Institute of Science Tokyo  
Development of Observation and Control Theory for the Measurement and Treatment of Inter-organ Networks

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Coffee Break

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### Chair Nina Sviridova

- 14:45-15:15**     **Takahiro Kimura**     The Jikei University School of Medicine  
Theoretical Research and Development on Dynamical Network Biomarkers Analysis for Early-Warning Signals of Diseases and Causal Analysis for Interactions between Organs (II)



**15:15-15:45**

**Kai Morino**

Kyushu University

**Theoretical Research and Development on Dynamical Network Biomarkers Analysis for Early-Warning Signals of Diseases and Causal Analysis for Interactions between Organs (VI)**

**15:45-16:15**

**Yuji Okamoto**

Kyoto University

**Theoretical Research and Development on Dynamical Network Biomarkers Analysis for Early-Warning Signals of Diseases and Causal Analysis for Interactions between Organs (VII)**

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Coffee Break

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**Chair Hideyuki Suzuki**

**16:30-17:30**

**Commemorative Ceremony in Honor of Professor Dr. Shun-ichi Amari**

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Break

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**Chair Yuji Okamoto**

**18:00-20:00**

**Poster Session with Dinner (Reception + Poster)**

**20:00-20:10**

**Closing**

## DAY2

**Thursday, November 20, 2025**

**Chair Shingo Iwami**

**9:20-9:50**

**Luonan Chen**

The University of Tokyo

**Theoretical Research and Development on Dynamical Network Biomarkers Analysis for Early-Warning Signals of Diseases and Causal Analysis for Interactions between Organs (I)**

**9:50-10:20**

**Tomoya Takeuchi**

Chiba Institute of Technology

**Mathematical Collaborative Research across Moonshot Goal 2 Projects (IV)**

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Coffee Break

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**Chair Kai Morino**

**10:35-11:05**

**Akinori Awazu**

Hiroshima University

**Theoretical Research and Development on Dynamical Network Biomarkers Analysis for Early-Warning Signals of Diseases and Causal Analysis for Interactions between Organs (IV)**

**11:05-11:35**

**Hideyuki Suzuki**

Osaka University

**Mathematical Collaborative Research across Moonshot Goal 2 Projects (I)**

**11:35-12:05**

**Yasuaki Hiraoka**

Kyoto University

**Mathematical Collaborative Research across Moonshot Goal 2 Projects (VI)**

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Lunch Break

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**Chair Koji Noshita**

**13:20-13:50 Katsuhito Fujiu** The University of Tokyo  
**Theoretical Research and Development on Dynamical Network Biomarkers Analysis for Early-Warning Signals of Diseases and Causal Analysis for Interactions between Organs (IV)**

**13:50-14:20 Gohei Tanaka** Nagoya Institute of Technology  
**Mathematical Collaborative Research across Moonshot Goal 2 Projects (II)**

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Coffee Break

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**14:35-15:05 Nina Sviridova** Tokyo City University  
**Mathematical Collaborative Research across Moonshot Goal 2 Projects (V)**

**15:05-15:35 Tetsuo Minamino** Kagawa University  
**Theoretical Research and Development on Dynamical Network Biomarkers Analysis for Early-Warning Signals of Diseases and Causal Analysis for Interactions between Organs (III)**

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Coffee Break

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**Chair Keita Iida**

**15:50-16:20 Yoshinori Tamada** Hirosaki University  
**Mathematical Collaborative Research across Moonshot Goal 2 Projects (VII)**

**16:20-17:00 Kantaro Fujiwara** The University of Tokyo  
**Comprehensive Database Construction for Medical and Mathematical Collaborative Research (I)**

**Kazutsuna Yamaji** National Institute of Informatics  
**Comprehensive Database Construction for Medical and Mathematical Collaborative Research (IV)**

**17:00-17:30 Takanori Fujita** Keio University  
**ELSI Initiative in Mathematical Collaborative Research and Comprehensive Database Construction across Moonshot Goal 2 Projects**

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Break

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**18:30-21:00 IZAKAYA Party**



**Chair** Gouhei Tanaka

**9:30-10:00**     **Shizuo Kaji**     Kyoto University  
Mathematical Collaborative Research across Moonshot Goal 2 Projects (III)

**10:00-10:30**     **Koji Noshita**     Kyushu University  
Comprehensive Database Construction for Medical and Mathematical Collaborative Research (III)

**10:30-11:00**     **Keita Iida**     Osaka University  
Comprehensive Database Construction for Medical and Mathematical Collaborative Research (II)

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Coffee Break

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**Chair** Kantaro Fujiwara

**11:15-12:15**     **Board Meeting**

**12:15-12:25**     **Closing**

**12:25-17:00**     **Free Discussion (optional)**



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