

Program

*Subject to change.

Day 1: Monday, October 5

13:00 - 13:10 Opening Remarks: **Shigeru Kitazawa**,
Director General of CiNet, NICT

(A slot includes 5 min. discussion at the end)

13:10 - 14:00 Slot 1: **Andrew Lampinen**
“What can neuroscience and AI learn from each other? Case studies on generalization, and rational analysis”

14:00 - 14:50 Slot 2: **Wilma Bainbridge**
“Artificial intelligence can predict our memories better than we can”

14:50 - 15:35 Coffee break + Poster presentations

15:35 - 16:25 Slot 3: **Kenji Doya**
“Toward more natural artificial intelligence”

16:25 - 17:15 Slot 4: **John Duncan**
“The physiology of cognitive control”

17:15 - 18:00 Discussion panel 1 – AI & Neuroscience

18:00 - 20:00 Poster presentations + Dinner

20:00 End of Day 1

Program

Day 2: Tuesday, October 6

(A slot includes 5 min. discussion at the end)

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| 9:30 - 10:20 | Slot 5: Martin Schrimpf
"NeuroAI to Understand and Treat the Brain" |
| 10:20 - 11:10 | Slot 6: Takufumi Yanagisawa
"Exploring Representational Spaces for Visual-Imagery Brain–Machine Interfaces" |
| 11:10 - 12:00 | Slot 7: Katharina Dobs
"Functional Specialization in Biological and Artificial Visual Systems" |
| 12:00 - 14:00 | Lunch + Poster presentations |
| 14:00 - 14:50 | Slot 8: Llion Jones & Kai Arulkumaran
"Bridging the gap between Neuro-science and Machine Learning" |
| 14:50 - 15:40 | Slot 9: Katherine Storrs
"Using the toolkit of psychology to evaluate visual understanding in artificial models" |
| 15:40 - 16:30 | Coffee break + Poster presentations |
| 16:30 - 17:20 | Slot 10: Robert Mok
"From neural codes to connectivity: how circuit organization shapes fast learning and generalization in the hippocampus" |
| 17:20 - 18:10 | Slot 11: Tatsuya Haga
"Representations and dynamics in the hippocampus: Bridging space with concepts, and replay with sampling" |
| 18:10 - 18:55 | Discussion panel 2 – AI, industry and academia – how to work together? |
| 18:55 | End of Day 2 |

Program

Day 3: Wednesday, October 7

(A slot includes 5 min. discussion at the end)

- 9:30 - 10:20 Slot 12: **Ida Momennejad**
 “The Compositional Geometry of Flexible Cognition”
- 10:20 - 11:10 Slot 13: **Taro Toyoizumi**
 “Modeling how the brain learns to represent ambiguous environments: Abstraction and Probability”
- 11:10 - 12:00 Slot 14: **Lis Kanashiro Pereira & Takuto Yamamoto**
 “Do LLMs and Brains Find the Same Things Funny (Omoroi)? Comparing Humor Representations in AI Models and the Human Brain”
 “Human-Like Attention Emerges without Gaze Supervision: Three DINO-ViT Attention Systems and Their Neural Counterparts”
- 12:00 - 14:00 Lunch + Poster presentations
- 14:00 - 14:50 Slot 15: **Kentaro Abe**
 “Language models for decoding non-human languages”
- 14:50 - 15:40 Slot 16: **Benjamin Hayden**
 “How can LLMs help us understand the brain”
- 15:40 - 16:25 Coffee break + Poster presentations
- 16:25 - 17:15 Slot 17: **Shinji Nishimoto**
 “Functional Organization of Perceptual and Cognitive Representations in the Human Brain across Naturalistic Experiences”
- 17:15 - 18:00 Discussion panel 3 – How to make progress on understanding natural and artificial intelligence?
- 18:00 - 18:10 Closing Remarks: **Robert Mok**
 Chair of the conference