



# IWAI2025

INTERNATIONAL WORKSHOP ON ACTIVE INFERENCE

*OCTOBER 15, 16 & 17, 2025*

New Residence Hall, McGill University  
3625 Park Ave, Montreal, Quebec H2X 3P8

# ACKNOWLEDGEMENTS

*IWAI 2025 IS MADE POSSIBLE THANKS TO THE FOLLOWING PEOPLE*

## GENERAL CHAIRS

DR. DAVID BENRIMOH - DAVID.BENRIMOH@MAIL.MCGILL.CA  
DR. MAHAULT ALBARRACIN - MAHAULT.ALBARRACIN@VERSES.AI

## TECHNICAL PROGRAM CHAIRS

IVILIN PEEV STOIANOV - IVILINPEEV.STOIANOV@CNR.IT  
VICE-CHAIR: MARTIJN WISSE - M.WISSE@TUDELFT.NL

## ADVANCEMENT CHAIR

SUSIE KIM - SUSIE.KIM@VERSES.AI

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*IWAI 2025 COMMUNITY PARTNER*



*IWAI 2025 MEDIA PARTNER*



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## IWAI ORGANIZATION COMMITTEE

MAHAULT ALBARRACIN, VERSES, USA  
DAVID BENRIMOH, MCGILL UNIVERSITY, CANADA  
CHRISTOPHER BUCKLEY, UNIVERSITY OF SUSSEX, UNITED KINGDOM  
PABLO LANILLOS, CAJAL NEUROSCIENCE CENTER, SPANISH NATIONAL RESEARCH COUNCIL, SPAIN  
RIDDHI J. PITLIYA, VERSES, USA  
HIDEAKI SHIMAZAKI, KYOTO UNIVERSITY, JAPAN  
IVILIN PEEV STOIANOV, INSTITUTE OF COGNITIVE SCIENCES AND TECHNOLOGIES (ISTC), NATIONAL RESEARCH COUNCIL (CNR), ITALY  
TIM VERBELEN, VERSES, USA  
MARTIJN WISSE, DELFT UNIVERSITY OF TECHNOLOGY, NETHERLANDS

# WELCOME TO IWAI 2025!

We are thrilled to welcome you to Montreal for the first ever North American edition of IWAI. We have prepared a fantastic ensemble of speakers ranging from the theoretical to the applied, in fields ranging from machine learning to robotics to computational psychiatry. This diversity speaks to the burgeoning growth of our field and its potential to serve as a general theory of information processing that can underlie significant advancements across the range of human undertaking.

We are also very excited to welcome you to Montreal - a city known as much for its expertise in neuroscience, artificial intelligence as for the liveliness of its nightlife and foodie scene. While we have a packed schedule laid out for you, we hope you get some time to explore the historic McGill campus, try poutine, and feast on some Montreal bagels.

Active Inference is at a critical crossroads. As the hype around generative AI runs into the fundamental limitations of the technology, new approaches such as Active Inference will be increasingly relevant on the global stage in the quest for new intelligent systems adapted to solving our greatest challenges. At the same time our community is still a close one- at IWAI, you can still meet, speak to, and connect with even the most senior thinkers in Active Inference. Take this opportunity - build connections, foster friendships and collaborations, and let's prepare for what comes next together!

Welcome to Montreal and to IWAI 2025!

**David Benrimoh, MD.CM., MSc., MSc., FRCPC**

**Mahault Albarracin, PhD**

***IWAI 2025 Chairs***

# INVITED SPEAKERS

## OPENING KEYNOTE

Chris Mathys

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## KEYNOTES

Glen Berseth  
Karl Friston  
Dalton Sakthivadival  
Jun Tani

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## SOCIAL SCIENCE PANEL

Axel Constant  
Ines Hipolito  
Ben White

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## TUTORIAL ON ACTIVE INFERENCE

Ryan Smith

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## FIRESIDE CHAT AND COCKTAIL

Anna Ciaunica  
Karl Friston  
Chris Mathys

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## LOCATIONS

**Main Stage, Poster Room, Lunch**  
New Residence Hall, McGill University  
3625 Park Ave, Montreal, Quebec H2X 3P8

**Fireside Chat & Cocktail**  
McGill Faculty Club, McGill University  
3450 McTavish St, Montreal, Quebec H3A 1X9

**Gala Dinner**  
NOMAD  
129 avenue Van Horne, Montréal, QC, H2T 2J2

FOR MORE INFORMATION, VISIT THE EVENT WEBSITE



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**15**  
OCTOBER

PROGRAM SCHEDULE

8.00

**REGISTRATION & BREAKFAST**

NEW RESIDENCE HALL, LOBBY

9.00

**OPENING REMARKS**

DR. DAVID BENRIMOH AND DR. MAHAULT ALBARRACIN NEW  
RESIDENCE HALL, MAIN STAGE

9.10

**ACTIVE INFERENCE TUTORIAL**

DR. RYAN SMITH  
NEW RESIDENCE HALL, MAIN STAGE

11.10

**BREAK**

NEW RESIDENCE HALL, LOBBY

11.20

**CURRENT PROGRESS IN EMPIRICAL  
APPLICATIONS OF ACTIVE INFERENCE IN  
COMPUTATIONAL PSYCHIATRY**

DR. RYAN SMITH  
NEW RESIDENCE HALL, MAIN STAGE

12.20

**LUNCH**

NEW RESIDENCE HALL, LOBBY

13.20

**CONTRIBUTED TALKS 1**

*MODELS OF DECISION MAKING*

**WAYMO**

**POSTER SPOTLIGHTS 1**

NEW RESIDENCE HALL, MAIN STAGE

14.30

**BREAK** *MADE POSSIBLE WITH THE SUPPORT OF WAYMO*

NEW RESIDENCE HALL, LOBBY

15.00

**OPENING KEYNOTE**

**WHAT ARE WE UP AGAINST IN ACTIVE INFERENCE?**

DR. CHRIS MATHYS  
NEW RESIDENCE HALL, MAIN STAGE

16.00

**POSTER SPOTLIGHTS 2**

NEW RESIDENCE HALL, MAIN STAGE

16.30

**POSTER SESSION 1**

NEW RESIDENCE HALL - POSTER ROOM

18.30

**FIRESIDE CHAT & COCKTAIL**

DRS. A. CIAUNICA, K. FRISTON, C. MATHYS, & R. SMITH MCGILL  
FACULTY CLUB

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**16**  
OCTOBER

PROGRAM SCHEDULE

8.00  
**REGISTRATION & BREAKFAST**  
NEW RESIDENCE HALL, LOBBY

9.00  
**INVITED TALKS**  
**REMARKS ON THE MATHEMATICS OF THE FREE ENERGY PRINCIPLE**  
DR. DALTON SAKTHIVADIVEL  
NEW RESIDENCE HALL, MAIN STAGE

10.00  
**CONTRIBUTED TALKS 2**  
FORNEY STYLE FACTOR GRAPHS  
**POSTER SPOTLIGHTS 3**  
NEW RESIDENCE HALL, MAIN STAGE

11.00  
**BREAK**  
NEW RESIDENCE HALL, LOBBY

11.15  
**CONTRIBUTED TALKS 3**  
FUNDAMENTAL ACTIVE INFERENCE EXTENSIONS  
**POSTER SPOTLIGHTS 4**  
NEW RESIDENCE HALL, MAIN STAGE

12.15  
**LUNCH**  
NEW RESIDENCE HALL, LOBBY

13.15  
**CONTRIBUTED TALKS 4**  
SIMULATIONS OF MENTAL PROCESSES  
**POSTER SPOTLIGHTS 5**  
NEW RESIDENCE HALL, MAIN STAGE

14.15  
**SOCIAL SCIENCE PANEL** *PROUDLY SPONSORED BY VERSES*  
DRS. A CONSTANT, B WHITE, I HIPOLITO NEW  
RESIDENCE HALL, MAIN STAGE

15.15  
**BREAK** *MADE POSSIBLE WITH THE SUPPORT OF NOUMENAL*  
NEW RESIDENCE HALL, LOBBY

15.45  
**CONTRIBUTED TALKS 5**  
HUMAN EXPERIMENTS  
**NOUMENAL**  
**POSTER SPOTLIGHTS 6**  
NEW RESIDENCE HALL, MAIN STAGE

16.55  
**POSTER SESSION 2**  
NEW RESIDENCE HALL - POSTER ROOM

19.00  
**GALA DINNER** *TICKETS PURCHASED SEPARATELY*  
NOMAD, 129 AVENUE VAN HORNE, MONTRÉAL, QC, H2T 2J2

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**17**  
OCTOBER

PROGRAM SCHEDULE

8.00

**REGISTRATION & BREAKFAST**

NEW RESIDENCE HALL, LOBBY

8.50

**INVITED TALKS**

**COGNITIVE NEUROROBOTICS STUDIES  
EXTENDING THE FREE ENERGY PRINCIPLE**

DR. JUN TANI, NEW RESIDENCE HALL, MAIN STAGE

9.50

**FIRESIDE CHAT, 'THE FUTURE OF AI'**

DRS. GARY MARCUS & KARL FRISTON, MODERATED BY TIM VERBELEN  
NEW RESIDENCE HALL, MAIN STAGE

10.30

**BREAK**

NEW RESIDENCE HALL, LOBBY

10.45

**CONTRIBUTED TALKS 6**

SCALING AND EFFICIENCY

**POSTER SPOTLIGHTS 7**

NEW RESIDENCE HALL, MAIN STAGE

11.45

**CONTRIBUTED TALKS 7**

ROBOTICS

**POSTER SPOTLIGHTS 8**

NEW RESIDENCE HALL, MAIN STAGE

12.45

**LUNCH**

NEW RESIDENCE HALL, LOBBY

13.45

**CONTRIBUTED TALKS 8**

THEORY OF MIND/MULTI-AGENT

**VERSES**

**POSTER SPOTLIGHTS 9**

NEW RESIDENCE HALL, MAIN STAGE

14.45

**INVITED TALK**

**MILA TALK**

DR. GLEN BERSETH, NEW RESIDENCE HALL, MAIN STAGE

15.40

**POSTER SESSION 3**

NEW RESIDENCE HALL, POSTER ROOM

16.30

**BREAK**

MADE POSSIBLE WITH THE SUPPORT OF **VERSES**  
NEW RESIDENCE HALL, LOBBY

17.00

**CLOSING KEYNOTE**

**ACTIVE INFERENCE, LEARNING AND SELECTION**

DR. KARL FRISTON, NEW RESIDENCE HALL, MAIN STAGE

18.00

**AWARDS AND CLOSING REMARKS**

DR. DAVID BENRIMOH AND DR. MAHAULT ALBARRACIN  
NEW RESIDENCE HALL, MAIN STAGE

# CONTRIBUTED TALKS

October 15, 2025

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**13.20**

## **CONTRIBUTED TALKS 1 - MODELS OF DECISION MAKING**

**On the Variational Costs of Changing Our Minds**

David Hyland; Mahault Albarracin

**Cognitive Effort in the Two-Step Task: An Active Inference Drift-Diffusion Model Approach**

Álvaro Garrido Pérez; Viktor Lemoine;  
Amrapali Pednekar; Yara Khaluf;  
Pieter Simoens

**Addressing the Subsumption Thesis: A Formal Bridge between Microeconomics and Active Inference**

Noé Romeo Kuhn

**Contributed Talk, Sponsor: WAYMO**

October 16, 2025

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**10.00**

## **CONTRIBUTED TALKS 2- FORNEY STYLE FACTOR GRAPHS**

**Bethe Predictive Coding**

Magnus Koudahl; Tommaso Salvatori;  
Lancelot Da Costa; Jeff Beck;  
Alexander Tschantz; Christopher L Buckley;  
Hampus Linander

**A Message Passing Realization of Expected Free Energy Minimization**

Wouter W. L. Nuijten; Mykola Lukashchuk;  
Thijs van de Laar;  
Bert de Vries

**Spike-Timing-Dependent Plasticity for Bernoulli Message Passing**

Sepideh Adamiat; Wouter M. Kouw; Bert de Vries



# CONTRIBUTED TALKS

October 16, 2025

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**11.15**

## **CONTRIBUTED TALKS 3 - FUNDAMENTAL ACTIVE INFERENCE EXTENSIONS**

**Diffusion-Generated Latent Spaces for Continuous Amortized Active Inference Agents: A Mathematical Framework**

Zahra Sheikhbahae; Adam Safron; Dalton A R Sakthivadivel;  
Mahault Albarracin; Irina Rish

**Deep Active Inference with Neural Stochastic Differential Equations**

Marc Pritsch; Georgia Koppe

**A Diffusion Prior for Active Inference Planning**

Catherine F. Higham

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**13.15**

## **CONTRIBUTED TALKS 4 - SIMULATIONS OF MENTAL PROCESSES**

**An Active Inference Model of Covert and Overt Visual Attention**

Tin Mišić; Karlo Koledić; Fabio Bonsignorio;  
Ivan Petrovic;  
Ivan Marković

**Dynamic Attentional Agents in Focused Attention Meditation: Hierarchical Computational Modeling of Expert-Novice Differences**

Prakash Chandra Kavi; Daniel Ari Friedman;  
Gustavo Patow

**Geometric Hyperscanning under Active Inference**

Nicolás Andrés Hinrichs; Mahault Albarracin;  
Dimitris Bolis; Yuyue Jiang; Leonardo Christov-Moore;  
Leonhard Schilbach

# CONTRIBUTED TALKS

October 16, 2025

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15.45

## CONTRIBUTED TALKS 5 - HUMAN EXPERIMENTS

**An Active Inference Model of Mouse Point-and-Click Behaviour**

Markus Klar; Sebastian Stein; Fraser Carlyl Paterson; John H. Williamson; Roderick Murray-Smith

**Writing through Sympathetic Arousal: A Perceptual Active Inference Model of on the Effects of Sympathetic Arousal Interoception on Written and Spoken Grammatical Complexity**

Aleksandra, B. Skelton; Lukas A. De Vries; Angelica M. Silva; Roberto Limongi

**Evaluation of "As-Intended" Vehicle Dynamics using the Active Inference Framework**

Kazuharu Kidera; Takuma Miyaguchi; Hideyoshi Yanagisawa

**Contributed Talk, Sponsor: NOUMENAL**

October 17, 2025

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10.00

## CONTRIBUTED TALKS 6 - SCALING AND EFFICIENCY

**Message passing-based inference in an autoregressive active inference agent**

Wouter M. Kouw; Tim N. Nisslbeck; Wouter W. L. Nuijten

**Multi-dimensional Autoscaling of Processing Services: A Comparison of Agent-based Methods**

Boris Sedlak; Alireza Furutanpey; Zihang Wang; Victor Casamayor Pujol; Shahram Dustdar

**Predictive Coding-based Deep Neural Network Fine-tuning for Computationally Efficient Domain Adaptation**

Matteo Cardoni; Sam Leroux

# CONTRIBUTED TALKS

October 17, 2025

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**11.15**

## **CONTRIBUTED TALKS 7 - ROBOTICS**

**Navigation and Exploration with Active Inference:  
from Biology to Industry**

Daria de Tinguy; Tim Verbelen;  
Bart Dhoedt

**Free-Gate: Planning, Control And Policy  
Composition Via Free Energy Gating**

Francesca Rossi; Émiland Garrabé; Giovanni  
Russo

**Mobile Manipulation with Active Inference for  
Long-Horizon Rearrangement Tasks**

Corrado Pezzato; Ozan Catal; Toon Van de  
Maele; Riddhi J. Pitliya; Tim Verbelen

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**13.15**

## **CONTRIBUTED TALKS 8 - THEORY OF MIND/MULTI-AGENT**

**Theory of Mind Using Active Inference: A Framework  
for Multi-Agent Cooperation**

Riddhi J. Pitliya; Ozan Catal; Toon Van de  
Maele; Corrado Pezzato;  
Tim Verbelen

**Demonstration of Making Humans Recognize  
Intentions of Robot Actions through Active Inference**

Kanako Esaki; Yasuyuki Kudo; Tadayuki  
Matsumura; Takeshi Kato; Misa Owa; Junichi  
Miyakoshi; Yasuhiro Asa;  
Yang Shao; Ryuji Mine; Hiroyuki Mizuno

**Navigating Uncertainties with Active Inference and  
Probabilistic Diffusion**

Yufei Huang; Yulin Li; Andrea Matta;  
Mohsen a jafari

**Contributed Talk, Sponsor: VERSES**

# POSTER SPOTLIGHT / SESSIONS

## **POSTER SESSION INSTALLATION**

*PRESENTED POSTERS MUST BE INSTALLED AT THE BEGINNING OF THE DAY OF THEIR SPOTLIGHT AND REMOVED AT THE END OF THAT DAY'S POSTER SESSION.*

*THERE WILL BE 10 POSTER STATIONS AVAILABLE PER SESSION (MAXIMUM 20 POSTERS), WITH EACH PRESENTER USING ONE SIDE. POSTERS ARE PLACED ON A FIRST-COME, FIRST-SERVED BASIS; NO ASSIGNED SPOTS WILL BE PROVIDED.*

October 15, 2025

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## **POSTER SPOTLIGHTS 1**

**Reframing the lived experience of persistent dizziness: insights from active inference**

Marc A Broberg; Mick Thacker;  
Jorge E Esteves

**No Way Out: Understanding Freeze Response in Trauma through Active Inference**

Yaqi S. Zhang; Anna Pereira

**Do Ambidextrous Organizations Minimize Free Energy?**

Mikko Järvinen

**Morals and Reasoning: Formalizing Moral Influence on Reasoning and AI Systems Alignment**

Albert Olweny Okiri

**Are clinical diagnoses regimes of attention under active inference?**

Dr David M Foreman; Gabbay Dov

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# POSTER SPOTLIGHT / SESSIONS

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## POSTER SPOTLIGHTS 2

**From Theory to Clinical Application: Aligning Active Inference Complexity with Behavioural Task Design in Suicidality Research**

Pamina Laessing; Andreea Diaconescu; Peter Dayan

**Psilocybin for treatment-resistant depression in autism: an active-inference model of improved cognitive flexibility**

Peter Bedford; Povilas Karvelis; Andreea Diaconescu

**The Role of Affective States in the Development of Psychotic Symptoms**

David Benrimoh; Ryan Smith; Andreea O Diaconescu; Timothy Friesen; Sara Jalali; Nace Mikus; Laura Gschwandtner; Jay Gandhi; Guillermo Horga; Albert Powers

**Real-time Active Inference for Auditory Hallucination Modeling in VR-based Voice Conversion**

Cumhur Erkut

**Modeling uncertainty and volatility using gamified online decision-making tasks across clinical and non-clinical populations: Setup & study plan**

Franziska Knolle

**Activating inference: Facilitating change in psychodynamic psychotherapy**

Patrice Duquette

**Active Inference for Energy Smart Connected Buildings**

Mohsen A. Jafari; Andrea Matta

**An Active Inference Approach to Agricultural Knowledge Representation**

Vasu Jindal; Huijin Ju; Zili Lyu

**Bayesian Glimpse Control Boosts Active Vision RL on Atari Pong**

Pengcheng Pan; Shogo Yonekura; Yasuo Kuniyoshi

**Predictive Decoding of Motor Intentions**

Antonio R. Buonfiglio; Stefano Diomedì; Matteo Priorelli; Ivilin P. Stoianov

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## POSTER SESSION 1

Commences after the Poster Spotlights

# POSTER SPOTLIGHT / SESSIONS

October 16, 2025

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## POSTER SPOTLIGHTS 3

**Active Inference for an Intelligent Agent in Autonomous Reconnaissance Missions**

Johan Schubert; Farzad Kamrani;  
Tove Gustavi

**Effects of dynamic goal prior specification on grid-world agent trajectories**

Thijs Jenneskens; Wouter M. Kouw

**Belief Formation in LLM Agents: Information Diffusion Simulation Based on the Collective Predictive Coding Hypothesis**

Yusuke Hayashi

**Performing Active Inference with Explainable Tensor Networks**

Philip Wilson

**Free Energy Projective Simulation (FEPS): Active Inference with Interpretability**

Joséphine Pazem; Marius Krumm; Alexander Q. Vining; Lukas J. Fiderer; Hans J Briegel

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## POSTER SPOTLIGHTS 4

**Dynamic Attractors as Active Inference: A Network-based Approach to Adaptive Systems**

Matthew Brown; Jeong Hwan Yoon; Pedro Fontana; Harneet Singh;  
Whitney Sales; Karl Friston

**Influence of Deep Neural Network Training Methods on Continual Learning**

Emma Graham; Chelsea Joe; Peter Chin;  
Richard Granger

**Hierarchical Deep Active Inference for Efficient Long-Horizon Planning**

Gabriel W. Haddon-Hill;  
Shingo Murata

**From Information Thermodynamics to Organizational Principles**

Lukas J. Fiderer; Elias Kunze;  
Hans J Briegel

**Long-term prediction of the learning process using reverse engineering of generative models**

Takuya Isomura; Yuki Tanimoto; Makio Torigoe;  
Hitoshi Okamoto;  
Hideaki Shimazaki

# POSTER SPOTLIGHT / SESSIONS

October 16, 2025

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## POSTER SPOTLIGHTS 5

**Material attention: A method to measure the effect of regimes of attention on decision making, using information theory and Markov chain models**

Arturo José Valiño; Andy Clark; Felipe Criado-Boado; Luis M. Martínez; Axel Constant

**Hierarchical Active Inference Modeling of Social Trust Dynamics in PTSD: Integrating Qualitative Phenomenology with Computational Psychiatry**

Andrew Pashea; Jeremy Cooper; Haeun Sun; Angelos Krypotos

**I Feel Incapable, Therefore I Fail – an Active Inference Account of Cognitive Control Deficits in Major Depressive Disorder and Generalized Anxiety Disorder**

Mengting Zhang

**Resilience and adaptability in self-evidencing systems**

Mahault Albarracin; Dalton A R Sakthivadivel

**The Next Episode**

Candice Pattisapu; Maxwell J. D. Ramstead

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## POSTER SPOTLIGHTS 6

**Intracranial Neural Signatures of Decision Uncertainty Based on an Active Inference Model for Three-Armed Bandit Reversal Learning Task**

Alessandra Nicoletta Cruz Yu; Ko-Ping Chou; Ryan Smith; Ignacio Saez; Vincenzo Fiore

**An Active Inference Account of Stuttering Behavior and Clinical Implications**

Evan Usler

**Exploring the computational underpinnings of the learned helplessness effect**

Nace Mikus; Federico Mancinelli; Giorgia Silani; Claus Lamm; Chris Mathys

**Technological Predictions: Rethinking UX Design through Active Inference and the Free Energy Principle**

Luca Possati

**Carving Psychological Space**

Candice Pattisapu; Maxwell J. D. Ramstead

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## POSTER SESSION 2

Commences after the Poster Spotlights

**IWAI 2025**

# POSTER SPOTLIGHT / SESSIONS

October 17, 2025

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## POSTER SPOTLIGHTS 7

**AXIOM: Learning to Play Games in Minutes with Expanding Object-Centric Models**

Conor Heins; Toon Van de Maele; Alexander Tschantz; Hampus Linander; Dimitrije Markovic; Tommaso Salvatori; Corrado Pezzato; Ozan Catal; Ran Wei; Magnus Koudahl; Marco Perin; Karl Friston; Tim Verbelen; Christopher L Buckley

**A Hardware-oriented Approach for Efficient Active Inference Computation and Deployment**

Nikola Pižurica; Nikola Milović; Igor Jovančević; Conor Heins; Miguel de Prado

**Bayesian Structure Learning for Scalable Active Inference**

Lancelot Da Costa

**Active Inference with Dynamic Planning and Information Gain in Continuous Space by Inferring Low-Dimensional Latent States**

Takazumi Matsumoto; Kentaro Fujii; Shingo Murata; Jun Tani

**Updating ActiveInference.jl: Modularity and Ease of Use for Active Inference Models Beyond the Discrete POMDP**

Peter Thestrup Waade; John C. Boik; Jonathan Ehrenreich Laursen; Samuel William Nehrer; Dominik Firisz; Chris Mathys

**Merging Biology with AI: A Brain-on-Chip for Next-gen Neuromorphic Computing**

Guillem Monsó; Wouter M. Kouw



# POSTER SPOTLIGHT / SESSIONS

October 17, 2025

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## POSTER SPOTLIGHTS 8

**Real-World Exploration and Navigation via Deep Active Inference with a Diffusion Policy and a World Model**

Riko Yokozawa; Kentaro Fujii;  
Yuta Nomura; Shingo Murata

**Deep Active Inference for Real-World Robot Control Using a Temporally Hierarchical World Model**

Kentaro Fujii; Shingo Murata

**Few-Shot Hierarchical Active Inference for Adaptive Planning with Diffusion Trajectories**

Yulin Li; Mohsen a jafari; Andrea Matta

**Hierarchical Active Inference for Autonomous Navigation in Microsoft AirSim with Environmentally Adaptive Planning**

Satyaki Maitra; Harshil Shah

**Robots Inventing Tools: Task-conditioned Tool Design for Robotic Operations**

Pablo Lanillos; Abián Torres;  
Poppy Collis; Virgilio Gomez Lambo

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## POSTER SPOTLIGHTS 9

**Attentional Narrowing and Cognitive flexibility in Active inference**

Kirstin Wagner; Alexander Hemming; Dylan Grove

**Resolving space-sharing conflicts in road user interactions through uncertainty reduction: An active inference-based computational model**

Julian Frederik Schumann;  
Johan Engstrom; Jens Kober;  
Arkady Zgonnikov

**RL Agents Exploring Communication with the Free Energy Principle**

Theodore Jerome Tinker; Jun Tani;  
Kenji Doya

**Simulating Agency Learning in Probabilistic and Social Multi-Agent Scenarios Using Active Inference**

Jialin Shi; Riddhi J. Pitliya;  
Robin A Murphy

**Making Sense of Uncertainty: Designing Experiences for Adaptive Inference**

Anna Pereira

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## POSTER SESSION 3

Commences after the Poster Spotlights

**IWAI 2025**