

18th March 2025					
Session	Time	Room	#Papers	Title	Authors
oral S4-A	14:00 - 15:00	Cosmos 3b	5	Leveraging Heterogeneous Controller Representations for Evolutionary Swarm Robotics	Max Foreback; Clifford Bohm; Emily Dolson
long S4-A	15:30 - 16:30	Cosmos 1&2	5	Testing the Inference Accuracy of Accelerator-friendly Approximate Phylogeny Tracking	Matthew Moreno; Anika Ranjan; Emily Dolson; Luis Zaman
Session Chair: Stefano Nichele				Shared Encoding and Representation of Tool-Mediated and Direct Touch via Superposition Mechanisms	Haruna Kasashima; Wataru Noguchi; Yasumasa Tamura; Masahito Yamamoto; Hiroyuki Iizuka
				Exploring higher-order mutation rates in a game-theoretical setting	Bruno Gašperov; Branko Šter
				Generational Replacement and Learning for High-Performing and Diverse Populations in Evolvable Robots	Ege de Bruin; Kai Olav Ellefsen; Kyrre Glette
poster S4	15:30 - 16:30	Cosmos 1&2	4	Biologically Inspired Spiking Neural Network for Autonomous Robot Control	William Betteridge; Andrew Walter; Shimeng Wu; Andy Tyrrell; Martin Trefzer
				What can machines teach us in our journey of reproducing human scientific creativity?	Anoushka Mazumdar; Nasir Karim; Soumya Banerjee
				Towards a unified theory of life-like systems	Soumya Banerjee
				Augmenting human intelligence on abstraction and reasoning tasks: a path synergistic AI-human interaction for the Abstraction and Reasoning Corpus	Salim Nader; Kiril Bikov; Soumya Banerjee
19th March 2025					
Session	Time	Room	#Papers	Title	Authors
oral S4-B	09:00 - 10:00	Cosmos 3d	3	Automating Damage Recovery in a Legged Robot	Geoff Nitschke; Alexandros Pouroullis; David Blore; Michael Scott; Julius Smith; Sindiso Mkhathshwa
long S4-B	10:00 - 11:00	Cosmos 1&2	3	Towards a CRISPR Cas9 Enhanced Genetic Algorithm	Camden Black Ingersoll; Jonathan Mwaura
Session Chair: Chrystopher Nehaniv				Frequency-based Multi-objective Feature Selection to Enhance the Generalization of Evolutionary Algorithms	Hamza Rangwala; Azam Asilian Bidgoli
short S4-A	11:00 - 12:00	Cosmos 1&2	4	A transformer-based deep reinforcement learning approach to spatial navigation in a partially observable Morris Water Maze	Marte Eggen; Inga Strumke
				Impact of Communication Masking on Problem Solving in LLM Agent Networks	Ilya Horiguchi; Takashi Ikegami; Michael Crosscombe
				The Evolution of Complex Attributes in a Species of Simulated Agents	Jay Nash; Gary Parker; Jim O'Connor
				Comparative Study of Decomposition and Merging Evolutionary Algorithms for Large-Scale Optimization Problems	Zachary McGovarin; Alanna McNulty; Beatrice Ombuki-Berman
LBP S4	11:00 - 12:00	Cosmos 1&2	1	Embodied Autoencoding Through Neural Cellular Automata: Information Transport Across Spatial Bottlenecks	Iliya Zhechev; Harald Ludwig
oral S4-C	14:00-15:00	Cosmos 3d	5	Structural Cellular Hash Chemistry	Hiroki Sayama
long S4-C	15:00-16:00	Cosmos 1&2	5	Evolutionary ecology of words	Reiji Suzuki; Takaya Arita
Session Chair: Hiroki Sayama				Exploring Open Dimensions in Artificial Immune Systems for High-Dimensional Tasks	Axel Luiggi-Gørrissen; Pauline Haddow; Trygve Woldseth
				Towards Understanding Evolved Memory Retaining Circuitry in the Wireworld Cellular Automaton	Clifford Bohm; Arend Hintze
				(J2C) A Cognitive Robotics Implementation of Global Workspace Theory for Episodic Memory Interaction with Consciousness	Wenjie Huang; Antonio Chella; Angelo Cangelosi
Short S4-B	15:00 - 16:00	Cosmos 1&2	4	Applying Factored Evolutionary Algorithms to the B-Spline Knot Selection Problem	Ginsberg, Eve; Schupbach, Jordan; Sheppard, John; Turk, Nicholas
				"I apologize for my actions": Emergent Properties and Technical Challenges of Generative Agents	Diamond, N'yoma; Banerjee, Soumya
				Learning Nonlinear Activation Functions in RL Through Evolutionary Computation	Nusse, Coen; Kooi, Jacob
				Analyzing the Dynamics and Structure of a Pandemic by Coupling Cellular Automata with an Algorithm for Neighborhood Generating	Klüver, Christina*; Faßbender, Guido