S4	2025 IEEE Symposium on CI in Artificial Life and Cooperative Intelligent Systems (IEEE ALIFE-CIS)				

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
				Shared Encoding and Representation of Tool-Mediated and Direct Touch via Superposition Mechanisms	Haruna Kasashima; Wataru Nogulli; 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 Mkhatshwa
long S4-B	10:00 - 11:00	Cosmos 1&2	3	Towards a CRISPR Cas9 Enhanced Genetic Algorithm	Camden Black Ingersoll; Jonathan Mwaura
				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
				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
				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