

h 14:30, 1st October 2024, Room Consiliare; Organizer: prof. I. Serina

Planning Against Nature



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Abstract: Planning and Acting in real-world environments usually have to deal with "acts of nature" that might change the state of the environment without the consent of the agent. In consequence, it might disrupt the plan and, in the worst case, cause damage or destruction to the agent. We formalise the problem of "planning against nature" and present techniques that for some subclasses of the problem can ensure the safety of the agent during its plan execution (under the given assumptions). The talk will be based on papers published on ICAPS 2024 and accepted to KR 2024.

Short Bio: Lukáš Chrpa is an associate professor at Czech Technical University in Prague and a freelance research scientist at Filuta AI. His expertise falls in the areas of AI planning, Decision-making, and Knowledge Engineering. His research mainly focuses on leveraging Knowledge Engineering techniques for modeling, analyzing, and reformulating planning tasks. In particular, he proposed techniques for reformulating domain models (e.g. by adding macro-operators) and applied planning for Autonomous Underwater Vehicles, Traffic Routing, and Automated Game testing.