



University of Cyprus

Department of Electrical and
Computer Engineering

"MDP Geometry, Normalization, and Value-Free Solvers"

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Wednesday 2nd of October 2024, 17:00 - 18:00

Room: XΩΔ02 -B107

Abstract: "Markov Decision Process (MDP) is a common mathematical model for sequential decision-making problems. In my talk, I will present a new geometric interpretation of MDP, which is useful for analyzing the dynamics of main MDP algorithms. Based on this interpretation, I will show that MDPs can be split into equivalence classes. This allows for the design of a new class of MDP-solving algorithms that find optimal policies without explicitly computing policy values."

Biography: "Arsenii is a fifth-year PhD student at Boston University, supervised by Alex Olshevsky and Yannis Paschalidis. His main research interest is the convergence analysis and other theoretical aspects of MDP. As a side project, Arsenii researches the implications of deep energy-based models for self-driving. Before coming to BU, Arsenii was a visiting researcher at UT Austin and a graduate student at Fudan University in Shanghai."