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Keynote speaker: **Evangelos Theodorou Georgia Institute of Technology, USA**

Decision Making Architectures for Safe Planning and Control of Agile Autonomous Vehicles

Abstract: In this talk I will present novel algorithms and decision-making architectures for safe planning and control of terrestrial and aerial vehicles operating in dynamic environments. These algorithms incorporate different representations of robustness for high speed navigation and bring together concepts from stochastic contraction theory, robust adaptive control, and dynamic stochastic optimization using augmented importance sampling techniques. I will present demonstrations on simulated and real robotic systems and discuss future research directions.

Biograpghy: Evangelos Theodorou is an Associate Professor with the School of Aerospace Engineering, Georgia Institute of Technology and is also the director of Autonomous Control and Decisions Systems (ACDS) laboratory. He is also affiliated with the Institute of Robotics and Intelligence Machines, and Center for Machine Learning Research at Georgia Tech. His interests are at the intersection stochastic control and optimization, machine learning, statistical physics and dynamic systems theory. Applications of his research include robotic and aerospace systems, applied physics, networked systems and bio-engineering.