

Neuro-Autonomy: Neuroscience-Inspired Perception, Navigation, and Spatial Awareness for Autonomous Robots



Students/Postdocs Talks

Thursday, November 14, 2019 - Day 2

Location: 8 Saint Mary's Street (Photonics Bldg.) Room PHO 339

9:00am-9:30am **Breakfast**

9:30am-9:45am Opening, **Yannis Paschalidis**

9:45am-10:05am Egocentric Boundary Vector Tuning of the Retrosplenial Cortex,
Andrew Alexander, *Postdoctoral Fellow, BU*
Advisor: Michael Hasselmo

10:05am-10:25am 2D/3D Pose Estimation in Animals, Humans, and Objects,
Mona Jalal, *PhD Candidate, Computer Science, Computer Vision, BU*
Advisor: Margrit Betke

10:25am-10:45am **Coffee Break**

10:45am-11:05am Learning from Animal ``Experts'' How to Navigate Complex Terrains,
Henghui Zu, *PhD Candidate, Systems Engineering, BU*
Advisor: Yannis Paschalidis

11:05am-11:25am An EM Approach to Hierarchical Imitation Learning,
Zhiyu Zhang, *PhD Candidate, Systems Engineering, BU*
Advisor: Yannis Paschalidis

11:25am-11:45am Robust, Non-Gaussian Semantic SLAM,
Kevin Doherty, *PhD Candidate, Aeronautics, Astronautics & Ocean Engineering, MIT*
Advisor: John Leonard

11:45am-12:05pm Robust Object-Based SLAM,
Kyel Ok, *PhD Candidate, Computer Science, EECS, MIT, Robust Robotics Group, CSAIL*
Advisor: Nick Roy

12:05pm-1:05pm **Lunch**

1:05pm-1:25pm Statistical Outlier Identification in Pose Graphs through Expectation Maximization and Belief Propagation,
Arman Karimian, *PhD Candidate, Systems Engineering, BU Robotics Lab*
Advisor: Roberto Tron

1:25pm-1:45pm Robust Localization Verifiability in the Presence of Pure Outlier Measurements via Linear Programming,
Mahroo Bahreinian, *PhD Candidate, Systems Engineering, BU Robotics Lab*
Advisor: Roberto Tron

1:45pm-2:05pm Geometric Attitude Control of Rigid Bodies via Contraction on Manifolds,
Bee Vang, *PhD Candidate, Mechanical Engineering, BU Robotics Lab*
Advisor: Roberto Tron

2:05pm-2:25pm **Closing**

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