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

CENTER FOR INFORMATION & SYSTEMS ENGINEERING

Wednesday, November 13, 2019 - Day 1

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

8:30am-9:00am	**Breakfast**
9:00am-9:25am	**Yannis Paschalidis,** Boston University Introductions and Overview
9:25am-9:50am	**Michael Hasselmo,** Boston University Spatiotemporal Coding of Trajectories and Environments in Cortex
9:50am-10:15am	**Margrit Betke,** Boston University 3D Visual Tracking and Pose Estimation of Animals
10:15am-10:40am	**Chantal Stern,** Boston University Functional MRI Studies of Navigation in Humans
10:40am-10:55am	**Coffee Break**
10:55am-11:20am	**Anthony Burkitt,** University of Melbourne Data-Driven Neural Modelling Approaches to Understanding Sensory Processing
11:20am-11:45am	**Ken Cheng,** Macquarie University The Antarium: A Reconstructed Visual Reality Arena
11:45am-12:10pm	**John Baillieul,** Boston University From C. Elegans to R. Norvegicus and Beyond: Autonomy Through Synthetic Neuromotor Systems
12:10pm-1:00pm	**Lunch**
1:00pm-1:25pm	**John Leonard,** Massachusetts Institute of Technology Semantic Navigation and Spatial Awareness
1:25pm-1:50pm	**Michael Milford,** Queensland University of Technology Place Perception Through Bio-Mimetic Sensing and Fusing Neurally-Inspired and Deep Neural Networks
1:50pm-2:15pm	**Girish Nair,** University of Melbourne Information Theory in the Sense-Perceive-Act Cycle
2:15pm-3:15pm	**Coffee Break: Tour at the Boston University Robotics Lab**
3:15pm-3:40pm	**William Moran & Simon Williams,** University of Melbourne Optimal Scheduling for Situation Assessment
3:40pm-4:05pm	**Andrey Savkin,** University of New South Wales UAV Navigation for Collision Avoidance and Following Targets
4:05pm-5:15pm	Visit of the BU Center for Integrated Life Sciences and Engineering (CILSE) and Tour of the Facilities (fMRI, Rat Physiology Lab)
6:00pm	**Dinner: Barcelona Wine Bar** (1700 Beacon St., Brookline)

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