



Last Updated: March 5, 2019

Toyota-CSAIL Joint Research Center – Quarterly Updates

March 7-8, 2019; Terman Conference Room 32-346

Thursday, March-7-2019

Day 1

- 9:00am – 9:25am Justin Solomon: *Sensible Deep Learning for 3D Data*
- 9:25am – 9:50am Alberto Rodriguez: *The Robotic Manipulation Data Engine*
- 9:50am – 10:00am **Break**
- 10:00am – 10:25am Antonio Torralba, Wojciech Matusik: *Understanding Human Gaze*
- 10:25am – 10:50am Wojciech Matusik: *Dense, Freeform Tactile Feedback for Manipulation and Control*
- 10:50am – 11:00am **Break**
- 11:00am – 11:30am Nick Roy, Boris Katz: *Using Vision and Language to Read Minds*
- 11:30am – 12:00pm Edward Adelson: *Exploring the World of High Definition Touch + Inner Vision: Camera Based Proprioception for Soft Robots*
- 12:00pm – 1:00pm **Lunch**
- 1:00pm – 1:30pm Ruth Rosenholtz: *Driver Perception and the Car-to-Driver Handoff*
- 1:30pm – 1:55pm Jim Glass, Antonio Torralba: *Crossing the Vision-Language Boundary*
- 1:55pm – 2:00pm **Break**
- 2:00pm – 2:25pm Armando Solar-Lezama: *Formal Verification Meets Big Data Intelligence...*
- 2:25pm – 2:50pm Daniel Jackson, Armando Solar-Lezama: *A Safety Interlock for Self-Driving Cars*
- 2:50pm – 3:00pm **Break**
- 3:00pm – 3:30pm Brian Williams, *Automation for Everyone*
- 3:30pm – 4:00pm Gerald Sussman, Lalana Kagal: *The Car Can Explain!*
- 4:00pm – 4:30pm Sangbae Kim: *All Terrain Mobility and Navigation*

Friday, March-8-2019

Day 2

- 9:30am – 10:00am Josh Tenenbaum: *Analysis by Synthesis Revisited: Visual Scene Understanding by Integrating Probabilistic Programs and Deep Learning*
- 10:00am – 10:25am Saman Amarasinghe, Fredo Durand: *Using Deep Learning to Speed Up Deep Learning*
- 10:25am – 10:50am Fredo Durand: *Differentiable Computer Graphics for Training and Verification of Machine Perception*
- 10:50am – 11:00am **Break**
- 11:00am – 11:30am Daniela Rus, Sertac Karaman: *A Parallel Autonomy System: Data-Driven and Model-Based Parallel Autonomy with Robustness and Safety Guarantees + Decision Making for Parallel Autonomy in Clutter: Addressing Intent, Interactions, Rules of the Road, and Safety + Tools and Data to Revolutionize Driving*
- 11:30am – 12:00pm **Wrap-Up with Daniela Rus**