



Recital Hall, Accolade East Building

VISION: SCIENCE TO APPLICATIONS

Laurence Harris and Doug Crawford

- **Marlene Behrmann, Carnegie Mellon University** A broader vision of object recognition: beyond ventral cortex
- **Piotr Jasiobedzki, MDA** Vision technologies for robotic systems in space, surgery, security and advanced manufacturing
- **Perry Johnson-Green, Canadian Space Agency** Vision and Space: Reducing the Risks of Human Exploration
- **Mary Pat McAndrews, Krembil Research Institute, UHN** Vision in memory: Brain networks responsible for recollecting perceptual detail

VISION AND LIMB CONTROL: MECHANISMS AND APPLICATIONS

Denise Henriques and Doug Crawford

- **John Kalaska, Université de Montréal** Neural Mechanisms of Action Selection in Dorsal Premotor Cortex
- **Gunnar Blohm, Queen's University** Towards understanding the statistics of visually-guided reaching
- **Lauren Sergio, York University** Vision into action when faced with brain dysfunction
- **José Santos-Victor, Instituto Superior Técnico** Understanding Human Cognition with Humanoid Robots

VISUAL KNOWLEDGE: PRIORS AND LEARNING

Richard Murray

- **Wilson Geisler, The University of Texas at Austin** Multidimensional Normalization is Optimal for Identification in Natural Scenes
- **Matthias Bethge, The University of Tübingen** Visual abstraction in brains and machines
- **Tai-Sing Lee, Carnegie Mellon University** Flexible encoding of natural scene priors in neural circuits

NEURAL PROCESSING UNDER NATURAL CONDITIONS

Kari Hoffman and Thilo Womelsdorf

- **Mayank Mehta, University of California, Los Angeles** From Virtual Reality to Reality: How Neurons Make Memorable Maps
- **Dana Ballard, The University of Texas at Austin**, A model of fixation selection
- **Nachum Ulanovsky, Weizmann Institute of Science** Neural codes for natural navigation in the hippocampal formation of bats
- **Uri Hasson, Princeton University** Hierarchical process memory: memory as an integral component of information processing

SEEING IN 3D

Rob Allison and Laurie Wilcox

- **Rob Allison, York University** Perception in Stereoscopic 3D Media
- **Marc Winterbottom, Air force Research Lab, Ohio** Operational Based Vision Assessment Research: Aircrew Depth Perception Standards and Screening Methods
- **Jenny Read, University of Newcastle** How insects see in 3D
- **Andrew Parker, University of Oxford** Searching for sites and neural correlates of cyclopean perception