

2017 Neural Computation and Engineering Connection

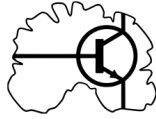
Thursday, January 19, 2017

CSNE - Russell Hall Suite 204, 1414 NE 42nd St.

- 11:30am-12:15pm Lunch and Neuroethics talk (talk begins at 11:45am)
Laura Specker Sullivan, Neuroethics Research Fellow, CSNE & UW Philosophy
- 12:15-1:15pm Panel discussion on research ethics in interdisciplinary fields
Chair: Adrienne Fairhall; Participants: Maria Geffen, Michael Berry, Loren Frank, Tom Daniel, Eric Shea-Brown
- 1:15-1:30pm Break
- 1:30-1:35pm Welcome: Adrienne Fairhall, Tom Daniel, Eric Shea-Brown
- 1:35-2:00pm 1-slide introductions by new UWIN and Computational Neuroscience graduate and postdoctoral fellows:
Michael Beyeler, UWIN/eScience postdoctoral fellow, Fine and Rokem labs
Gabrielle Gutierrez, UWIN postdoctoral fellow, Shea-Brown and Rieke labs
Thomas Mohren, UWIN graduate fellow, S. Brunton and Daniel labs
Phil Mardoum, UWIN graduate fellow, Rieke and Wong labs
Claire Rusch, UWIN graduate fellow, Riffell lab
David Caldwell, UWIN/BDGN graduate fellow, Rao and Ojemann labs
Abhishek De, Comp Neuro graduate fellow, Horwitz lab
Reza Eghbali Comp Neuro graduate fellow, Rubinstein lab
Jacob Baudin Comp Neuro graduate fellow, Rieke lab
- 2:00-2:15pm *"Facilitating Foot-Related Object Identification with Transcranial Magnetic Stimulation of the Dorsal Premotor Cortex"*
Darby Losey, UWIN/CSNE undergraduate fellow, Rao and Stocco labs
- 2:15-2:30pm *"Quantifying the Timing Characteristics of Adult Zebra Finch Songs"*
Elliott Abe, UWIN/Comp Neuro undergraduate fellow, Fairhall lab
- 2:30-2:45pm Break

- 2:45-3:00pm *"Error-related Potentials in Continuous Control ECoG BCI"*
Nile Wilson, UWIN/CSNE graduate fellow, Rao and Ojemann group
- 3:00-3:15pm *"Unsupervised decoding of long-term, naturalistic human neural recordings with automated video and audio annotations"*
Nancy Wang, UWIN/eScience graduate fellow, B. Brunton and Rao labs
- 3:15-3:30pm *"Challenges in connectome inference and analysis"*
Kameron Decker Harris, BDGN graduate fellow, Shea-Brown lab
- 3:30-3:45pm *"Connectivity in the Resting State"*
Kaitlyn Casimo, UWIN/CSNE graduate fellow, Ojemann lab
- 3:45-4:00pm Break
- 4:00-4:15pm *"Inferring Brain-wide Dynamics from Wide-field Calcium Imaging Data"*
Kathleen Champion, Comp Neuro graduate fellow, Shea-Brown lab
- 4:15-4:30pm *"Do muscle synergies change after treatments in cerebral palsy"*
Ben Shuman, UWIN graduate fellow, Steele lab
- 4:30-5:20pm Plenary Lecture: *"Cortical circuits supporting dynamic auditory perception"*
Maria Geffen, University of Pennsylvania
- 5:20-6:30pm Poster session** and pizza

**Please note that the street doors to Russell Hall lock at 6pm. If you plan to attend the poster session, please arrive prior to 6pm.



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Friday, January 20, 2017

UW Husky Union Building (HUB) Room 250

Early evening reception in HUB 145

- 8:30-9:10am Continental breakfast
- 9:10-9:15am Welcome and community updates
Adrienne Fairhall, Tom Daniel, Eric Shea-Brown
- Session I
Chair: Bing Brunton
- 9:15-9:50am *"Exploring visual computation in the mouse cortex using the Allen Brain Observatory"*
Saskia de Vries, Allen Institute for Brain Science
- 9:50-10:25am *"Statistical Modeling for Problems in Neuroscience"*
Daniela Witten, UW Statistics and Biostatistics
- 10:25-11:00am *"Modeling human brain development based on quantitative magnetic resonance imaging"*
Jason Yeatman, UW Speech and Hearing Sciences
- 11:00-11:20am Break
- 11:20am-12:10pm Plenary Lecture: *"Predictive Coding of Novel vs Familiar Stimuli in the Primary Visual Cortex"*
Michael Berry, Princeton University
- 12:10-1:20pm Lunch (provided)
- Session II
Chair: Eli Shlizerman
- 1:20-1:45pm *"Long term sleep recording in non-human primates"*
Miriam Ben-Hamo, UW Biology

- 1:45-2:10pm *"Learning functional connectivity from MEG data with graphical models of time series"*
Nick Foti, UW Statistics
- 2:10-2:35pm *"Robustness via Redundancy: Multisensory control of flight in hawkmoths"*
Eatai Roth, UW Biology
- 2:35-2:55pm Break
- Session III
Chair: Kat Steele
- 2:55-3:30pm *"Data science: tools and practices for the era of brain observatories"*
Ariel Rokem, UW eScience Institute
- 3:30-4:05pm *"Observing and controlling the nonlinear world in a linear framework"*
Steve Brunton, UW Mechanical Engineering
- 4:05-4:25pm Break
- 4:25-5:15pm Plenary Lecture: *"Challenge and Engagement: Ensuring effective upper limb robotic rehabilitation"*
Marcia O'Malley, Rice University
- 5:15-7:00pm Reception in HUB 145 (one floor down)