

**Sunday (September 7):**

**16:00** Check-in begins (Front Desk – Professional Development Centre - 24 hours)

**17:30-19:30** Dinner

**20:00** Informal gathering in 2nd floor lounge, Corbett Hall. Beverages and snacks are available on a cash honor system.

**Monday (September 8):**

**7:00-8:30** Breakfast

**8:30-8:45** Welcome and Introduction

**8:45-9:25** Sept, David ‘Structure-Function Differences of Parasite Actin’

**9:25-10:05** Pollard, Thomas D. ‘Models for the dynamics of the cytokinesis machinery across the entire cell cycle in fission yeast’

**10:05-10:30** Coffee break

**10:30-11:10** Bershadsky, Alexander ‘Organization of the actin cytoskeleton’

**11:10-11:50** Carlsson, Anders ‘How Actin Pulls on the Cell Membrane to Drive Endocytosis’

**11:50-12:30** Fletcher, Dan ‘Cytoskeletal assembly under confinement’

**12:30-13:30** Lunch

*Free Afternoon*

**17:30-19:30** Dinner

**19:30-20:20** Keren, Kinneret ‘Actin turnover in lamellipodial keratocyte fragments’

**20:10-20:50** Papoian, Garegin ‘Detailed Computational Modeling of the Eukaryotic Cytoskeleton’

**20:50-21:30** Losert, Wolfgang ‘Wave-Based Mechanisms for Contact Guidance and Collective Migration’

**Tuesday (September 9):**

**7:00-8:30** Breakfast

**8:30-9:10** Ermentrout, Bard ‘Formation and destabilization of aster-like structures in actin-myosin models’

**9:10-9:50** Cytrynbaum, Eric ‘Bending of FtsZ’

**9:50-10:30** Jilkine, Alexandra ‘An interlocked feed-forward loop circuit can explain the phenotypic heterogeneity of fat-cell differentiation’

**10:30-10:55** Coffee break

**10:55-11:35** Marée, Stan ‘Cell polarity in plants and animals: an evolutionary conservation of developmental principles’

**11:35-12:15** Levchenko, Andre ‘Computing to move: how live cells integrate complex inputs in polarization and migration’

**12:15-13:30** Lunch

**13:00-14:00** Guided Tour of The Banff Centre; meet in the 2nd floor lounge, Corbett Hall

**14:00** Group Photo – meet on the front steps of Corbett Hall

**14:15-16:30** Poster Session (Max Bell Complex)

**17:30-19:30** Dinner

**19:30-20:20** Dawes, Adriana ‘Symmetry breaking and actomyosin regulation in the early *C. elegans* embryo’

**20:10-20:50** Grieneisen, Verônica ‘Interlocking cell polarities: from cells to tissues’

**20:50-21:30** Holmes, Bill ‘Modeling the regulation of dynamic motility: actin waves, polarity oscillations’

### **Wednesday (September 10):**

**7:00-8:30** Breakfast

**8:30-9:10** Gardner, Melissa ‘Minus-End Directed Kinesin-14 Motors Align Anti-Parallel Microtubules to Control Metaphase Spindle Length’

**9:10-9:50** Goodson, Holly ‘Re-evaluation of the Concept of Critical Concentration as it Relates to Microtubules and other Steady-State Polymers’

**9:50-10:15** Coffee break

**10:15-10:55** Weiner, Orion ‘Shining new light on signal integration with optogenetics’

**10:55-11:35** Bement, William ‘Cyclin-dependent kinase-constrained cortical chaos’

**11:35-12:15** Diz Munoz, Alba ‘How neutrophils might convert changes in membrane tension to changes in intracellular signaling during chemotaxis’

**12:15-13:30** Lunch

***Free Afternoon***

**17:30-19:30** Dinner

**19:30-20:20** Walcott, Sam ‘Ensemble behavior of myosin motors’

**20:10-20:50** Fogelson, Ben ‘Scaling behavior of actomyosin stress fibers’

**20:50-21:30** Sykes, Cécile ‘Shape changes of cell-sized liposomes reveal actomyosin forces’

**Thursday (September 11):**

**7:00-8:30** Breakfast

**8:30-9:10** Mori, Yoichiro ‘Simulating chemical diffusion and osmotic water flow in a moving domain’

**9:10-9:50** Sun, Sean ‘The role of water in cell mechanics, cell shape and cell motility’

**9:50-10:15** Coffee break

**10:15-10:55** Odde, David ‘Motor-clutch model for substrate stiffness sensing by living cells’

**10:55-11:35** Paluch, Ewa ‘Actin cortex mechanics in animal cell morphogenesis’

**11:35-12:15** Janmey, Paul ‘Non-linear elasticity and relaxation in soft tissues and polymer networks’

**12:15-13:30** Lunch

***Free Afternoon***

**17:30-19:30** Dinner

**19:30-20:10** Upadhyaya, Arpita ‘Actin dynamics during signaling activation in immune cells’

**20:10-20:50** Verkhovskiy, Alexander ‘Shape-motion feedback in rapidly migrating cells’

**20:50-21:30** Allard, Jun ‘Actin-myosin spatial patterns’

**Friday (September 12):**

**7:00-8:30** Breakfast

**8:30-9:10** Nathke, Inke ‘The mechanics of Crypt fission’

**9:10-9:50** Svitkina, Tatyana ‘Shaping dendritic spines in hippocampal neurons by spectrin cytoskeleton’

**9:50-10:00** Short break

**10:00-10:40** Khismatullin, Damir ‘Three-dimensional modeling of amoeboid chemotaxis’

**10:40-11:10** Mogilner, Alex 'Modeling contraction of disordered actomyosin arrays'

**11:30-13:30** Lunch – Checkout by 12 noon