



Banff International Research Station

for Mathematical Innovation and Discovery

Thin Liquid Films and Fluid Interfaces: Models, Experiments and Applications December 9 - 14, 2012

MEALS

Breakfast (Buffet): 7:00 – 9:30 am, Room 105, Kinnear Centre, Monday – Friday

Lunch (Buffet): 11:30 am – 1:30 pm, Room 105, Kinnear Centre, Monday – Friday

Dinner (Buffet): 5:30 – 7:30 pm, Room 105, Kinnear Centre, Sunday – Thursday

Please note that all meals from Sunday dinner to Friday lunch will take place in Room 105 of the Kinnear Centre and not the Vistas main dining room in the Sally Borden Building

MEETING ROOMS

All lectures will be held in the new lecture theater in the TransCanada Pipelines Pavilion (TCPL).

SCHEDULE

Talks: 30 minutes; 5 minutes for discussion

Sunday

4:00 pm Check-in begins (Front Desk – Professional Development Centre - open 24 hours)
5:30-7:30 Buffet Dinner
8:00 Informal gathering in 2nd floor lounge, Corbett Hall
Beverages and small assortment of snacks are available on a cash honor system.

Monday

8:45-9:00 Introduction and Welcome by BIRS Station Manager, TCPL
9:00-9:35 Demetrios Papageorgiou: *Nonlinear dynamics of multilayer flows in channels*
9:35-10:10 Dirk Peschka: *Liquid/liquid dewetting - theory and experiments*
10:10-10:30 Discussion: Michael Shearer
10:30-11:00 Coffee Break
11:00-11:35 Karin Jacobs: *Nanofluidics of thin films: Linking stability and dynamics of liquid layers to microscopic material properties*
11:35-12:10 Stephen Wilson for Brian Duffy: *Fluid Rings*
12:10-12:30 Discussion: Karen Daniels
12:30-1:30 Lunch
1:30-2:30 *Guided Tour of The Banff Centre*; meet in the 2nd floor lounge, Corbett Hall
2:30-2:40 *Group Photo*; meet in foyer of TCPL (photograph outdoors so a jacket will be required).
2:40-3:00 Open for Discussion/Collaboration
3:00-3:30 Coffee Break, TCPL
3:30-4:00 Open
4:00-4:35 Ralf Seemann: *Liquid morphologies and their manipulation on liquids and elastic grooved substrates*
4:35-5:10 Joao Cabral: *Waves of network formation and interfacial instabilities for 3D microfabrication*
5:10-5:45 Marina Chugunova: *Existence and long-time behavior of weak solutions for the Mullins equation*
5:45-6:15 Discussion: Linda Cummings
6:30-7:30 Dinner
7:30-9:00 *Poster Session*

Tuesday

- 9:00-9:35 Günter Auernhammer: *Influence of surfactant concentration and roughness on the dynamics close to advancing and receding contact lines*
- 9:35-10:10 David Sibley: *Slip or not slip? A comparison of models applied to contact line motion*
- 10:10-10:30 Discussion: Stephen Wilson
- 10:30-11:00 Coffee Break, TCPL
- 11:00-11:35 Shilpa Khatri: *Motion of immiscible droplets in density stratified fluids*
- 11:35-11:55 Aaron Persad: *On the Source of Temperature Pulsations During Sessile Droplet Evaporation*
- 11:55-12:15 Daniel Herde: *Wetting dynamics on chemically structured substrates*
- 12:15-12:30 Discussion: Demetrios Papageorgiou
- 12:30-1:30 Lunch
- 1:30-3:00 Open for Discussion/Collaboration
- 3:00-3:30 Coffee Break, TCPL
- 3:30-4:00 Open
- 4:00-4:35 Lou Kondic: *Films, rings, and rivulets: Instabilities of liquid metals on nanoscale*
- 4:35-5:10 Josh Bostwick: *Surfactant-driven fracture of gels*
- 5:10-5:45 Satish Kumar: *Dynamic wetting failure and air entrainment: What can thin-film models teach us?*
- 5:45-6:15 Discussion: Bob Behringer
- 6:30-7:30 Dinner

Wednesday

- 9:00-9:35 Uwe Thiele: *Thin film evolution equations for complex fluids*
- 9:35-10:10 Linda Cummings: *3D models for thin nematic films*
- 10:10-10:30 Discussion: Steve Davis
- 10:30-11:00 Coffee Break, TCPL
- 11:00-11:35 Richard Braun: *Models for Tear Film Dynamics*
- 11:35-12:10 Stephen Garoff: *Quasi-Immiscible Spreading of Aqueous Surfactant Solutions on Aqueous Entangled Polymer Solutions*
- 12:10-12:30 Discussion: Steve Garoff
- 12:30-1:30 Lunch
- 2:00-6:00 Free Afternoon: *Hike to gondola up and down the mountain; refreshments at Banff Springs Hotel*
- 6:00-7:30 Dinner
- 7:30-8:15 Steve Davis: *Dynamics of Foam*

Thursday

- 9:00-9:35 Stephen Wilson: *Floating Plates*
- 9:35-10:10 Kara Maki: *Settling Dynamics of the Contact Lens*
- 10:10-10:30 Discussion: Rachel Levy
- 10:30-11:00 Coffee Break, TCPL
- 11:00-11:35 Yvonne Stokes: *Clear-fluid and particle-laden flows in helical channels*
- 11:35-12:10 John Lister: *Viscous currents spreading under an elastic lid*
- 12:10-12:30 Discussion: Peko Hosoi
- 12:30-1:30 Lunch
- 1:30-3:00 Open for Discussion/Collaboration
- 3:00-3:30 Coffee Break, TCPL
- 3:30-4:00 Open
- 4:00-4:35 Rouslan Krechetnikov: *Chemical reaction-driven tip-streaming: the true nature*
- 4:35-5:10 Burt Tilley: *Self-similar rupture of thin heated viscous sheets*
- 5:10-5:45 Linda Smolka: *Biaxial extensional motion of an inertially driven circular sheet*
- 5:45-6:15 Discussion: Tom Witelski
- 6:30-7:30 Dinner

Friday

9:00-10:00 Discussion/Collaboration

10:00-10:30 Coffee Break, TCPL

10:30-11:30 Discussion/Collaboration

11:30-13:30 Lunch

Checkout by 12 noon.

5-day workshop participants are welcome to use BIRS facilities (BIRS Coffee Lounge, TCPL and Reading Room) until 3 pm on Friday, although participants are still required to checkout of the guest rooms by 12 noon.