

# Front Propagation and Particle Systems

## August 31-September 5

### MEALS

\*Breakfast (Buffet): 7:00–9:30 am, Sally Borden Building, Monday–Friday

\*Lunch (Buffet): 11:30 am–1:30 pm, Sally Borden Building, Monday–Friday

\*Dinner (Buffet): 5:30–7:30 pm, Sally Borden Building, Sunday–Thursday

Coffee Breaks: As per daily schedule, in the foyer of the TransCanada Pipeline Pavilion (TCPL)

**\*Please remember to scan your meal card at the host/hostess station in the dining room for each meal.**

### MEETING ROOMS

All lectures will be held in the lecture theater in the TransCanada Pipelines Pavilion (TCPL). An LCD projector, a laptop, a document camera, and blackboards are available for presentations.

### SCHEDULE

#### Sunday

- 16:00** Check-in begins (Front Desk - Professional Development Centre - open 24 hours)  
**17:30–19:30** Buffet Dinner, Sally Borden Building  
**20:00** Informal gathering in 2nd floor lounge, Corbett Hall (if desired)  
Beverages and a small assortment of snacks are available on a cash honor system.

#### Monday

- 7:00–8:45** Breakfast  
**8:45–9:00** Introduction and Welcome by BIRS Station Manager, TCPL  
**9:00–10:30** H. Berestycki “Reaction-diffusion equations in non-homogeneous media I”  
**10:30–10:50** Coffee Break, TCPL  
**10:50–12:20** Pinsky “Second-order semi-linear parabolic equations in  $R^d$  with an absorption term  $u^p$ ,  $1 < p \leq 2$ , and their connection to measure-valued diffusion processes: uniqueness for the Cauchy problem and singular solutions”  
**12:20–13:45** Lunch

#### Tuesday

- 7:00–9:00** Breakfast  
**9:00–10:30** H. Berestycki “Reaction-diffusion equations in non-homogeneous media II”  
**10:30–10:50** Coffee Break, TCPL  
**10:50–12:20** Zeitouni “Modified second moment, branching random walks, and limit theorems”  
**12:20–13:30** Lunch  
**13:00–14:00** Guided Tour of The Banff Centre; meet in the 2nd floor lounge, Corbett Hall  
**14:00–14:45** Harris “Branching Brownian motion with killing”  
**14:45–15:15** Coffee Break, TCPL  
**15:15–16:45** Pinsky “Second-order semi-linear elliptic equations in an exterior domain in  $R^d$  with an absorption term  $u^p$ ,  $0 < p < 1$ , and Neumann or Dirichlet boundary data: the free boundary”  
**17:30–19:30** Dinner

## Wednesday

- 7:00–9:00** Breakfast  
**8:45–10:15** Roquejoffre “Propagation enhancement by a line of fast diffusion I”  
**10:15–10:35** Coffee Break, TCPL  
**10:35–12:05** Zeitouni “Modified second moment, branching random walks, and limit theorems”  
**12:05–13:30** Lunch  
**13:45–14:00** Group Photo; meet in foyer of TCPL (photograph will be taken outdoors so a jacket might be required).  
**14:00–14:45** Aidekon “The extremal process of the branching Brownian motion”  
**14:45–15:15** Coffee Break, TCPL  
**15:15–16:00** Zlatos ”Propagation of reaction in inhomogeneous media”  
**16:05–16:50** Nolen ”A simple PDE argument for the logarithmic term in the asymptotics of branching Brownian motion”  
**17:30–19:30** Dinner

## Thursday

- 7:00–9:00** Breakfast  
**9:00–10:30** Roquejoffre “Propagation enhancement by a line of fast diffusion II”  
**10:30–10:50** Coffee Break  
**10:50–11:35** Brunet TBA  
**11:40–12:25** N. Berestycki  $t^{3/2}$  propagation for a toads model  
**12:30–13:30** Lunch  
**14:00–14:45** Schweinsberg “Rigorous results for a population model with selection”  
**14:45–15:15** Coffee Break, TCPL  
**15:15–16:00** Rossi ”Admissible speeds of transition fronts for the Fisher–KPP equation”  
**16:05–16:50** Mirrahimi ”Singular limits for reaction-diffusion equations with fractional Laplacian”  
**17:30–19:30** Dinner

## Friday

- 7:00–9:00** Breakfast  
**9:00–10:30** Informal discussions  
**10:30–11:00** Coffee Break  
**11:00–11:30** Concluding discussions  
**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. \*\*