



Banff International Research Station

for Mathematical Innovation and Discovery

10w5073 Deterministic and stochastic front propagation

March 21 - 26, 2010

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, 2nd floor lounge, Corbett Hall

*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 Max Bell 159 (Max Bell Building accessible by walkway on 2nd floor of Corbett Hall). LCD projector, overhead projectors and blackboards are available for presentations. Note that the meeting space designated for BIRS is the lower level of Max Bell, Rooms 155-159. Please respect that all other space has been contracted to other Banff Centre guests, including any Food and Beverages in those areas.

SCHEDULE

March 22, Monday

8:30-8:45 Introduction and welcome

8:45-9:35 Perthame "Turing instabilities, traveling waves and concentrations in parabolic equations I"

9:45-10:35 Brunet "The Fisher-KPP equation and other pulled fronts I"

Coffee break

11:00-11:30 Berard "Brunet-Derrida velocity shift for branching-selection particle systems"

11:30-12:00 Roques "Accelerating rates of spread in reaction-diffusion recolonization models"

1:00-2:00 Tour of the Banff Center

2:00 Group photograph

2:30-3:00 de Bouard "Stochastic nonlinear Schrodinger equations and modulation of solitary waves"

3:00-3:30 Nolen "Traveling waves in an inhomogeneous medium"

3:30-4:00 Coffee break

4:00-4:30 Kosygina "On random walks in a random potential conditioned to hit a remote location"

4:30-5:00 Jerrard "Accelerating fronts in a semilinear hyperbolic equation"

March 23, Tuesday

8:45-9:35 Perthame "Turing instabilities, Traveling waves and concentrations in parabolic equations II"

9:45-10:35 del Pino "Minimal surfaces and entire solutions of the Allen-Cahn equation~I"

10:35-11:00 Coffee break

11:00-11:30 Calvez "Traveling pulses in chemotactic bacterial populations"

11:30-12:00 Iyer "Large exit times of diffusions with incompressible drift"

2:30-3:00 Chapuisat "Travelling fronts steered by the nonlinearity in biology"

3:00-3:30 Cinti "Sharp energy estimates and 1D symmetry for nonlinear equations involving fractional Laplacians"

3:30-4:00 Coffee break

4:00-4:30 Gui "Axial Symmetry of Some Entire Solutions of Nonlinear Elliptic Equations"

5:00-5:30 El Smailly "The KPP minimal speed within large drift in two dimensions"

7:45-8:15 Souganidis TBA

8:15-8:45 Berestycki ""Generalizing the principal eigenvalue of elliptic operators to unbounded domains and applications"

March 24 Wednesday

8:45-9:35 del Pino "Minimal surfaces and entire solutions of the Allen-Cahn equation~II"

9:45-10:35 Brunet " The Fisher-KPP equation and other pulled fronts II"

March 25, Thursday

8:45-9:35 Perthame "Turing instabilities, Traveling waves and concentrations in parabolic equations III"

9:45-10:35 del Pino "Minimal surfaces and entire solutions of the Allen-Cahn equation~III"

Coffee break

11:00-11:30 Comets "KPP equation with time-space random rate"

11:30-12:00 Roussier-Michon "Travelling wave for the forced mean curvature motion"

2:30-3:00 Nadin "Asymptotic spreading in general heterogeneous media"

3:00-3:30 Novikov "A stochastic particle system for the Burgers equation"

3:30-4:00 Coffee break

4:00-4:30 Ghoussoub "Regularity of extremal solutions in fourth order nonlinear eigenvalue problems"

4:30-5:00 Sire "Some topics involving fractional powers of elliptic operators"

March 25, Friday

8:45-9:35 Brunet " The Fisher-KPP equation and other pulled fronts III"

9:45-10:35 Wei "Traveling Wave Foliations of Allen-Cahn Equation Near Eternal Solutions of Mean Curvature Flow"

10:35-11:00 Coffee break

11:00-11:30 Zlatos TBA

Checkout by 12 noon.

** 5-day workshop participants are welcome to use BIRS facilities (2nd Floor Lounge, Max Bell Meeting Rooms, Reading Room) until 3 pm on Friday, although participants are still required to checkout of the guest rooms by 12 noon. **