New Developments on Variational Methods and Their Applications
May 15 - 20, 2004

MEALS

Breakfast (Continental): 7:00 – 9:00 am, 2nd floor lounge, Corbett Hall, Sunday – Thursday
*Lunch (Buffet): 11:30 am – 1:30 pm, Donald Cameron Hall, Sunday – Thursday
*Dinner (Buffet): 5:30 – 7:30 pm, Donald Cameron Hall, Saturday – Wednesday
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 lunch and dinner.

MEETING ROOMS

All lectures are held in the BIRS lecture room, <u>Max Bell 159</u>. *Please 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 Beverage in those areas.*

SCHEDULE

	Saturday	*Sunday*	*Monday*	*Tuesday*	*Wednesday*	*Thursday*
7:00-9:00	x	Continental Breakfast, 2nd floor lounge, Corbett Hall				
8:30-9:00	x	*Welcome & Introduction Max Bell 159 (8:45)*	Ekeland	Y. Li	Esteban	x
9:10-9:40	x	Long	Serfaty	McKenna	Sere	x
9:40-10:20		Coffee Break, 2nd floor lounge, Corbett Hall				x
10:20-10:50	x	Bolotin	Bartsch	K. Zhang	Alama	x
11:00-11:30	x	M. Ji	Ghoussoub	Buffoni	Farber	x
11:30-13:30	x	Buffet Lunch, Donald Cameron Hall				
13.15-14.15	x	Guided Tour	x	x	x	x
13:30-14:00	x	Bates (14:30-15:00)	C. Li	free	Wei	x
14:10-14:40	x	Sternberg (15:10-15:40)	Burchard	free	Jaing	x
14:40-15:20	x	Coffee Break, 2nd floor lounge, Corbett Hall (except free afternoon) (15:40-16:00 Monday)				x
15:20-15:50	x	Wang (16:00-16:30)	Ren	free	Hajaej	x
16:00-16:30	x	Montero (16:40-17:10)	Glotov	free	x	x
	x	Group Photo (17:20-17:30)	x	free	x	x
17:30-19:30	Buffet Dinner, Donald Cameron Hall					x

Notes:
A free guided tour of The Banff Centre is offered to all participants and their guests on **Sunday** starting at 1:15 pm. The tour takes approximately 1 hour. Please meet in the 2nd floor lounge in Corbett Hall.
2. A group photo will be taken on **Sunday** at 5:20 pm, directly after the last lecture of the afternoon. Please meet on the front steps of Corbett Hall.

Titles of Talks:

Stan Alama: Giant vortex and the breakdown of pinning in a rotating Bose-Einstein condensate

T. Bartsch: Nodal solutions of elliptic equations

Peter W. Bates, Xinfu Chen, Adam J.J. Chmaj: Heteroclinic solutions in a phase transition model with indefinite nonlocal interactions

S. Bolotin: Shadowing of collision chains for the elliptic 3 body problem

B. Buffoni: Minimization methods for quasi-linear problems and stability of solitary water waves

Almut Burchard: Compactness via Symmetrization

Ivar Ekeland: Existence and regularity of solutions for a new type of variational problems

Maria Esteban: About a physical notion of ground-state solutions for a highly indefinite variational problem.

M. Farber: Homoclinic cycles, closed 1-forms and homotopy invariants

Nassif Ghoussoub: Anti-self dual Lagrangians and new variational formulations of boundary value problems and evolution equations

Glotov: Vortices and current in the three-dimensional thin-film Ginzburg-Landau model of superconductivity

Hichem Hajaiej: Existence and non-existence of Schwarz symmetric ground states for elliptic eigenvalue problems

Mei-Yue Jiang: Periodic Solutions of Second Order Superquadratic Hamiltonian Systems with Potential Changing Sign

Min Ji: On the Nirenberg Problem

Wenxiong Chen, Congming Li, Biao Ou: Classification of Solutions for a System of Integral Equations

YanYan Li: On the Yamabe problem and a fully nonlinear version of it

Yiming Long, Duanzhi Zhang, Chaofeng Zhu: Multiple Brake Orbits in Bounded Convex Symmetric Domains

P.J. McKenna & W. Reichel: Symmetry properties of positive solutions to nonlinear second order finite difference boundary value problems

Montero: Stable Vortex Solutions to the Ginzburg-Landau Equations with and without Magnetic Field

Xiaofeng Ren: Stability of Spot and Ring Solutions of the Diblock Copolymer Equation

Eric Sere: Existence of a stable polarized vacuum in the Bogoliubov-Dirac-Fock approximation

Sylvia Serfaty: Gamma-convergence of gradient flows with applications to Ginzburg-Landau

Peter Sternberg: Things I don't know (but wish I did) about local minimizers to Ginzburg-Landau, Allen-Cahn and Cahn-Hilliard

Zhi-Qiang Wang: On Some Weighted Hardy-Sobolev Inequalities

Kewei Zhang: On some 1-d forward-backward parabolic equations