

# Workshop on Symplectic Dynamics

## Agenda

October 10-14, 2011

All talks will take place in Wolfensohn Hall

Monday, October 10

10-11 Dusa McDuff, Columbia University, "Symplectic invariants – some progress and some problems" [abstract](#)

11:30 – 12:30 Walter Craig, McMaster University, "The free surface water wave problem as a Hamiltonian system" [abstract](#)

12:30 – 2:30 Lunch (IAS Dining Hall)

2:30 – 3:30 Patrice Le Calvez, University Paris 13, "Existence of transverse foliations to identity isotopies on surfaces and applications" [abstract](#)

3:30 – 4:30 Tea (Fuld Hall Common Room)

4:30 – 5:30 Ely Kerman, University of Illinois, "A symplectic proof of a theorem of Franks" [abstract](#)

Tuesday, October 11

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9-10 Anton Gorodetski, University California, Irvine, "Conservative homoclinic bifurcations and the structure of a stochastic sea of the standard map" [abstract](#)

10:15 – 11:15 Vadim Kaloshin, Penn State University, "On Kolmogorov's conjecture and Hausdorff dimension of oscillatory motions for certain restricted three body problems" [abstract](#)

11:30 – 12:30 Victor Ginzburg, University of California, Santa Cruz, "Action-index relations for Hamiltonian dynamical systems" [abstract](#)

12:30 – 2:30 Lunch (IAS Dining Hall)

2:30 – 3:30 Yiming Long, Nankai University, "Resonance identities and closed characteristics on compact star-shaped hypersurfaces in  $\mathbf{R}^{2n}$ " [abstract](#)

3:30 – 4:30 Tea (Fuld Hall Common Room)

4:30 – 5:30 Jairo Bochi, PUC-Rio, "Generic symplectic diffeomorphisms and partial hyperbolicity" [abstract](#)

Wednesday, October 12

9-10 Albert Fathi, ENS Lyon, "Convergence of discounted solutions of the Hamiltonian-Jacobi equation" [abstract](#)

10:15 – 11:15 Barney Bramham, IAS, "Using pseudo-holomorphic curves to approximate zero entropy Hamiltonian systems by integrable ones" [abstract](#)

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11:30 – 12:30 Chong-Qing Cheng, Nanjing University, “Regularity of weak KAM” [abstract](#)

12:30 – 2:30 Lunch (IAS Dining Hall)

2:30 – 3:30 Hakan Eliasson, Université Paris 7, “KAM-Tori accumulating a Diophantine elliptic equilibrium point” [abstract](#)

3:30 – 4:30 Tea (Fuld Hall Common Room)

4:30 – 5:30 Jeff Xia, Northwestern University, “Some intersection and rigidity properties in symplectic dynamics” [abstract](#)

Thursday, October 13

9-10 Serge Tabachnikov, Penn State University, “Higher pentagram maps and cluster algebras” [abstract](#)

10:15 – 11:15 Umberto Hryniewicz, IAS, “Global surfaces of section of tight Reeb flows and applications” [abstract](#)

11:30 – 12:30 Krystyna Kuperberg, Auburn University, “Flows with nested invariant sets” [abstract](#)

12:30 – 2:30 Lunch (IAS Dining Hall)

2:30 – 3:30 Yakov Pesin, Penn State University, “Essential coexistence of zero and nonzero

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Lyapunov exponents for volume preserving maps and flows" [abstract](#)

3:30 – 4:30      Tea (Fuld Hall Common Room)

4:30 – 5:30      Richard Montgomery, University of California, Santa Cruz, "K3 and the planar 4 body problem" [abstract](#)

Friday, October 14

9-10              Gonzalo Contreras, CIMAT, "Generic existence of an elliptic closed geodesic in the 2-sphere" [abstract](#)

10:15-11:15      Boris Hasselblatt, Tufts University, "New contact Anosov flows via Foulon surgery" [abstract](#)

11:30 – 12:30    John Franks, Northwestern University, "Entropy zero symplectic diffeomorphisms of  $S^2$ " [abstract](#)

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