Schedule Overview

Monday, September 7, 2015

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| 9:00-9:30 | **Registration** |
| 9:30-9:45 | **Jonathan Ben-Artzi, Mahir Hadžić, Stephen Pankavich**    *Welcome* |
| 9:45-10:30 | **Pierre Degond (Imperial College) and Yan Guo (Brown)**  *Welcome and historical remarks* |
| 10:30-11:00 | *Coffee Break* |
| 11:00-11:45 | **François Golse (École polytechnique)**  *On the mean-field and classical limits for the N-body Schrödinger equation* |
| 11:50-12:35 | **Yan Guo (Brown)**  *Derivation of steady Navier-Stokes equations from the Boltzmann theory* |
| 12:35-14:00 | *Lunch* |
| 14:00-14:45 | **Philip** **Morrison (Austin)**  *Sculpting Vlasov phase space* |
| 14:45-15:15 | *Coffee Break* |
| 15:15-16:00 | **Zhiwu Lin (Georgia Tech)**  *Instability index, exponential trichotomy and invariant manifolds for Hamiltonian PDEs* |
| 16:05-16:50 | **Bruno Després (Paris Pierre et Marie Curie)**  *Advances in the modeling of kinetic sheath in plasma* |

Tuesday, September 8, 2015

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| 9:00-9:45 | **Silvia Caprino (Roma Tor Vergata)**  *On a Vlasov-Poisson plasma with infinite charge and velocities* |
| 9:50-10:35 | **Evelyne Miot (École polytechnique)**  *Uniqueness for the Vlasov-Poisson system with unbounded density* |
| 10:35-11:00 | *Coffee Break* |
| 11:00-11:45 | **Walter Strauss (Brown)**  *A body moving in a kinetic sea* |
| 11:50-12:35 | **Alexander Schekochihin (Oxford)**  *Phase mixing vs. nonlinear advection in drift-kinetic plasma turbulence* |
| 12:35-14:30 | *Lunch + photo* |
| 14:30-15:15 | **Clément Mouhot (Cambridge)**  *Hölder continuity of solutions to Vlasov-Fokker-Planck type equations with rough coefficients* |
| 15:20-16:05 | **Daniel Han-Kwan (École polytechnique)**  *The quasineutral limit of the Vlasov-Poisson system* |
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| 18:30-22:30 | **Conference Dinner at 170 Queen’s Gate**  *18:30 Reception, 19:30 Dinner* |

Wednesday, September 9, 2015

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| 9:00-9:45 | **Gerhard Rein (Bayreuth)**  *Gravitational collapse and the Vlasov equation* |
| 9:50-10:35 | **Jacques Smulevici (Paris-Orsay)**  *A vector field method for kinetic transport equations with applications to classical and relativistic systems* |
| 10:35-11:00 | *Coffee Break* |
| 11:00-11:45 | **Martin Taylor (Cambridge)**  *Stability of Minkowski space for the massless Einstein-Vlasov system* |
| 11:50-12:35 | **Simone Calogero (Chalmers)**  *Relativistic diffusion* |
| 12:35-14:00 | *Lunch* |
| 14:00-14:45 | **Mohammed Lemou (Rennes)**  *On quantitative rearrangement inequalities and their applications to Vlasov-Poisson, HMF and 2D-Euler systems* |
| 14:45-15:15 | *Coffee Break* |
| 15:15-15:45 | **Igor Gapyak (Kyiv)**  *On the rigorous derivation of the Enskog kinetic equation* |
| 15:50-16:20 | **Cesare Tronci (Surrey)**  *Hybrid kinetic-fluid models for magnetized plasmas* |
| 16:25-16:55 | **Julien Barré (Nice)**  *Perturbation of non homogeneous stationary states of the Vlasov equation* |

Thursday, September 10, 2015

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| 9:00-9:45 | **Claude Bardos (Paris Diderot)**  *About the Maxwell-Boltzmann relation for fluids and plasmas* |
| 9:50-10:35 | **Jacob Bedrossian (Maryland)**  *Landau damping in Gevrey regularity for Vlasov-Poisson and connections with hydrodynamic stability* |
| 10:35-11:00 | *Coffee Break* |
| 11:00-11:45 | **Toan Nguyen (Penn State)**  *Stability of a hot plasma in a solid torus* |
| 11:50-12:35 | **Thomas Holding (Cambridge)**  *Instability of non-monotone equilibria of the relativistic Vlasov-Maxwell system on unbounded domains* |
| 12:35-14:00 | *Lunch* |
| 14:00-14:45 | **Claude Bardos (Paris Diderot)**  *Open problems and future directions* |
| 14:45-15:15 | *Coffee Break* |
| 15:15-16:00 | **Susana Gutierrez (Birmingham)**  *Strichartz estimates for the kinetic transport equation* |
| 16:05-16:50 | **Jonathan Luk (Cambridge)**  *Strichartz estimates and moment bounds for the Vlasov-Maxwell system* |

Friday, September 11, 2015

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| 9:00-9:45 | **Irene Gamba (Austin)**  *On computational issues of Vlasov-Maxwell and Vlasov-Poisson-Landau* |
| 9:50-10:35 | **Yingda Cheng (Michigan State)**  *Energy-conserving discontinuous Galerkin schemes for the Vlasov-Maxwell system* |
| 10:35-11:00 | *Coffee Break* |
| 11:00-11:45 | **Martin Campos Pinto (Paris Pierre et Marie Curie)**  *On structure-preserving DG-PIC schemes for the Vlasov-Maxwell system* |
| 11:50-12:35 | **Nikolaos Bournaveas (Edinburgh)**  *Global existence and blow up for some kinetic and hyperbolic models of chemotaxis* |
| 12:40-13:25 | **Slim Ibrahim (University of Victoria)**  *The Vlasov-Poisson system for stellar dynamics in spaces of constant curvature* |
| 13:25-13:35 | *Closing* |