

[Program, Workshop 15w5049](#)

Kinetic and Related Equations, July 5-10, 2015, Oaxaca, Mexico

Monday, July 6, 2015

8:45	Welcome, Reinhard Illner, University of Victoria
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9:00 – 12:30	Session 1, Chair: J. Carrillo
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9:00 – 9:45	Axel Klar, Universitaet Kaiserslautern NUMERICAL METHODS FOR MEAN FIELD EQUATIONS DERIVED FROM INTERACTING PARTICLE SYSTEMS
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9:50 – 10:35	Dieter Armbruster, Arizona State University A KINETIC MODEL FOR AN AGENT BASED MARKET SIMULATION
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10:40 – 11:00	Break
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11:00 – 11:45	Martin Frank, Universitaet Aachen FROM RADIATION IN CLOUDS TO FRACTIONAL DIFFUSION
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11:50 – 12:35	Ricardo Alonso, PUC Rio de Janeiro THE RADIATIVE TRANSFER EQUATION IN THE FORWARD-PEAKED REGIME
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12:40 – 2:30	Lunch
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2:30 – 6:00	Session 2, Chair: T. Yang
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2:30 – 3:15	Amit Einav, Imperial College London ON THE CAUCHY THEORY FOR THE BOLTZMANN-NORDHEIM EQUATION FOR BOSONS
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3:20 – 4:05	Luc Mieussens, Université de Bordeaux NUMERICAL SIMULATION OF THE CROOKES RADIOMETER
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4:10 – 4:30	Break
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4:30 – 5:15	Martial Agueh, University of Victoria KINETIC MODELS OF GRANULAR AND OPTIMAL TRANSPORT I: GENERAL LOCAL EXISTENCE
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5:20 – 6:05	Guillaume Carlier, Université Paris IX (Dauphine) KINETIC MODELS OF GRANULAR AND OPTIMAL TRANSPORT II: ONE-DIMENSIONAL MODELS.
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Tuesday, July 7, 2015

9:00 – 12:30 **Session 3, Chair: B. Wennberg**

9:00 – 9:45 V.I. Gerasimenko, Institute of Mathematics of NAS of Ukraine
ON THE KINETIC EQUATIONS OF A HARD SPHERE SYSTEM

9:50 – 10:35 Renjun Duan, The Chinese University of Hong Kong
THE VLASOV-POISSON-BOLTZMANN SYSTEM AROUND A NONTRIVIAL
PROFILE

10:40 – 11:00 **Break**

11:00 – 11:45 Kazuo Aoki, Kyoto University

NONLINEAR ACOUSTIC WAVE PROPAGATION IN A RAREFIED GAS:
NUMERICAL ANALYSIS BASED ON KINETIC AND FLUID EQUATIONS

11:50 – 12:35 Maria C. Carvalho, University of Lisbon
A BOLTZMANN MODEL FOR ROD ALIGNMENT AND SCHOOLING OF FISH

12:40 – 2:30 **Lunch**

2:30 – 6:05 **Session 4, Chair: K. Aoki**

2:30 – 3:15 José A. Cañizo, University of Birmingham
CERCIGNANI'S CONJECTURE BETWEEN MULTIPLES OF THE EQUILIBRIUM

3:20 – 4:05 Jean Dolbeault, Université Paris IX (Dauphine)
ENTROPY METHODS AND SHARP FUNCTIONAL INEQUALITIES: NEW
RESULTS

4:10 – 4:30 **Break**

4:30 – 5:15 Jaewoo Jung, KAIST
ON THE FOKKER PLANCK EQUATION IN MULTI-DIMENSIONAL BOUNDED
DOMAINS

5:20 – 6:05 Lorenzo Pareschi, Università di Ferrara
MODEL PREDICTIVE BOLTZMANN CONTROL

Wednesday, July 8, 2015

9:00 – 1:00 **EXCURSION**

2:30 – 6:05 **Session 5, Chair: H-J Hwang**

2:30 – 3:15 Eric Carlen, Rutgers University
CLASSICAL AND QUANTUM MASTER EQUATIONS FOR N-PARTICLE
SYSTEMS AND THEIR KINETIC LIMITS

3:20 – 4:05 Marie-Thérèse Wolfram, Austrian Academy of Sciences, Vienna
PRICE FORMATION: FROM BOLTZMANN TO MEAN FIELD MODELS

4:10 – 4:30 **Break**

4:30 – 5:15 Emeric Bouin, ENS Lyon
PROPAGATION IN KINETIC REACTION-TRANSPORT EQUATIONS

5:20 – 6:05 Vincent Calvez, ENS Lyon
VELOCITY-JUMP PROCESSES : LARGE DEVIATIONS AND ACCELERATION
OF TRANSPORT-REACTION FRONTS

Thursday, July 9, 2015

9:00 – 12:30 **Session 6, Chair: A.Klar**

9:00 – 9:45 Francis Filbet, Université de Lyon
HIGH ORDER SEMI-IMPLICIT SCHEMES FOR TIME DEPENDENT KINETIC EQUATIONS

9:50 – 10:35 Jonathan Ben-Artzi, Imperial College London
POLYNOMIAL RATE OF CONVERGENCE FOR ERGODIC AVERAGES ALONG VECTOR FIELDS

10:40 – 11:00 **Break**

11:00 – 11:45 Håkan Andréasson, University of Goeteborg
ON THE ROTATION CURVES FOR AXIALLY SYMMETRIC DISK SOLUTIONS OF THE VLASOV-POISSON SYSTEM

11:50 – 12:35 Shengyi Shen, University of Victoria
THE VLASOV-POISSON SYSTEM FOR STELLAR DYNAMICS IN SPACES OF CONSTANT CURVATURE

12:40 – 2:30 **Lunch**

2:30 – 6:00 **Session 7, Chair: N. Ghoussoub**

2:30 – 3:15 Stephan Martin, RWTH Aachen
GLOBAL MINIMIZATION WITH INTERACTING PARTICLE SYSTEMS

3:20 – 4:05 Jose Morales Escalante, University of Texas at Austin
DISCONTINUOUS GALERKIN METHODS FOR BOLTZMANN – POISSON MODELS OF ELECTRON TRANSPORT IN SEMICONDUCTORS

4:10 – 4:30 **Break**

4:30 – 5:15 Jan Haskovec, King Abdullah University of Science and Technology (KAUST)
ANALYTICAL AND NUMERICAL FLOCKING IN THE CUCKER-SMALE MODEL WITH NOISE AND DELAY

5:20 – 6:05 Frédérique Charles, Université Paris 6
A LINEARLY TRANSFORMED PARTICLE METHOD FOR AGGREGATION EQUATION

Friday, July 10, 2015

9:50 – 12:00

Session 8, Chair: J. Dolbeault

Additional Talks

TBA
