

# Program of Hamiltonian systems and their applications, June 3 - 8, 2015

Euler International Mathematical Institute, St. Petersburg, Russia

## Wednesday 3 June:

9:30—10:00: registration

10:00–10:50: **Massimiliano Berti**      berti@sissa.it

”KAM for PDEs”

coffee break

11:20–12:10: **Andreas Knauf**      knauf@math.fau.de

”New Techniques for the N-Body Problem”

lunch

14:00–14:50 **A.Neishtadt**      A.Neishtadt@lboro.ac.uk

”Passages through resonances and capture into resonance in dynamics of charged particles”

15:00–15:25 **Hongzi Cong**      conghongzi@dlut.edu.cn

coffee break

16:00–16:50 **Sergey Bolotin**      bolotin@mi.ras.ru

Moscow Steklov Mathematical Institute and University of Wisconsin

”Billiards in the three body problem”

17:00–17:25 **Alberto Maiocchi**      alberto.maiocchi@unimi.it

”Time correlations and relaxation times for Hamiltonian systems”

18:00: **WELCOME PARTY**

## THURSDAY 4 June:

10:00–10:50: **Valerij Kozlov**      kozlov@pran.ru, Moscow Steklov Mathematical Institute

”Homogeneous systems with quadratic integrals, Lie-Poisson quasi-brackets, and Kowalevskaya method”

coffee break

11:20–12:10: **Konstantin Khanin**     khanin@math.toronto.edu  
 ”On global solutions for the random Hamilton-Jacobi equation”

lunch

14:00-14:50 **Benoit Grebert**     Benoit.Grebert@univ-nantes.fr  
 ”Modified Scattering for cubic NLS on  $\mathbb{R} \times \mathbb{T}^d$  : the nonresonant case”

15:00-15:25 **Jianjun Liu**     liujj@fudan.edu.cn  
 ”Growth of Sobolev Norms for Nonlinear Schrodinger Equations”

coffee break

16:00-16:25 **Marcel Guardia**     marcel.guardia@upc.edu  
 ”Growth of Sobolev norms for the defocusing analytic NLS”

16:30-16:55 **Jessica Massetti**     jessica.massetti@obspm.fr  
 ”MOSER’S NORMAL FORM AND DISSIPATIVE KAM THEORY”

17:05-17:30 **Andrey Dymov**     adymov88@gmail.com  
 ”Non-equilibrium statistical mechanics of crystals in medium”

18:30 **BOAT TRIP**

**FRIDAY 5 June:**

10:00–10:50: **Thomas Kappeler**     thomas.kappeler@math.uzh.ch  
 ”On the convexity of the KdV Hamiltonian”

coffee break

11:20–12:10: **P.I. Plotnikov**     plotnikov@hydro.nsc.ru  
 ”Parseval’s variational principle and KAM theory”

lunch

14:00-14:50 **Xiaoping Yuan**     yuanxiaoping@hotmail.com  
 ”A KAM thorem for some quasi-linear PDEs”

15:00-15:50 **Dima Treschev**     treschev@mi.ras.ru  
 ”Locally linear billiard maps”

coffee break

16:20–16:45: **Alberto Maspero**    alberto.maspero@math.uzh.ch  
 ”Freezing of energy of a soliton in an external potential”

16:55–17:20: **Riccardo Montalto**    riccardo.montalto@math.uzh.ch  
 ”KAM for gravity capillary water waves”

### **SATURDAY 6 June:**

10:00–10:50: **Jiangong You**    (Nanjing University) jyou@nju.edu.cn  
 ”Quasi-Periodic Schrödinger Cocycles with Positive Lyapunov Exponent are not Open in the Smooth Topology”

11:20–12:10: **Cheng Chong-Qing**    chengcq@nju.edu.cn  
**TBA**

lunch

14:00 **Excursion**

19:00 - **Conference Dinner at Tchaikovsky Restaurant, Fontanka emb., 6**

### **SUNDAY 7 June:**

10:00–10:50: **Andrey Mironov**    mironov@math.nsc.ru  
 ”Integrable geodesic flows on 2-torus and the systems of hydrodynamical type”

coffee break

11:20–12:10: **Andrey Tsiganov**    andrey-ts@yandex.ru  
 ”On conformally Hamiltonian vector fields”

lunch

14:00-14:50 **Andrey Sarychev** asarychev@gmail.com,    University of Florence, Italy  
 ”Ensemble controllability by Lie algebraic methods”

15:00-15:25 **Jan Molnar**    jan.molnar@math.uzh.ch  
 ”On Two-Sided Estimates for the Nonlinear Fourier Transform of KdV”

coffee break

16:00-16:25 **Yannick Widmer**    yannick.widmer@math.uzh.ch

"The periodic complex sine-Gordon equation"

16:30-16:55 **Zhiyan ZHAO**      zyqiao1985@gmail.com

"Ballistic Diffusion in One-Dimensional Lattice Schrödinger Equation"

17:05-17:30 **D. Burlakov**      burlada@mail.ru

"Invariant tori in a neighborhood of a degenerate resonance"

**MONDAY 8 June:**

10:00–10:50: **Lion Lokutsievskiy**      lion.lokut@gmail.com

"On new phenomenon of chaotic behavior of non-smooth Hamiltonian systems coming from optimal control"

11:00–11:25 **Livia Corsi**      lcorsi@math.mcmaster.ca

"An abstract KAM result"

lunch