Dynamics and PDEs

November 12–16, 2012

Schedule

MONDAY

9h-9h45 **A. Avila** *TBA*

9h45-10h30 **B. Fayad** *Local rigidity for affine $\mathbb{Z}^k$ actions on the torus*

pause

10h45-11h30 **D. Damanik** *The spectrum of quasi-periodic Schrödinger operators in the perturbative regime*

11h30-12h15 **J. Schmeling** *Multifractal analysis of some multiple ergodic average*

Lunch break

16h30-17h15 **V. Baladi** *Natural boundary for the susceptibility function of generic piecewise expanding unimodal maps*

17h15-18h **T. Kappeler** *Large number of particles asymptotics of Toda lattices*

TUESDAY

9h-9h45 **T. Alazard** *On the Cauchy problem for gravity water-waves*

9h45-10h30 **D. Bambusi** *Asymptotic stability of breathers in some Hamiltonian networks of weakly coupled oscillators*

pause

10h45-11h30 **M. Berti** *KAM theory for quasi-linear and fully nonlinear KdV equations*

11h30-12h15 **W. Craig** *Vortex filament interactions and Hamiltonian PDEs*

Lunch break

16h30-17h15 **S. Kuksin** *On quantum averaging, KAM and diffusion*

17h15-18h **M. Guardia** *Growth of Sobolev norms for the cubic defocusing NLS with and without a convolution potential*

pause

18h15-19h **B. Grébert** *KAM for the Beam Equation on the torus*

WEDNESDAY

9h-9h45 **S. Marmi** *There is only one KAM curve*

9h45-10h30 **A. Fathi** *Lyapunov forms*

pause

10h45-11h30 **K. Johansson** *Dimer models and random matrix statistics*

11h30-12h15 **P. Bernard** *Arnold's diffusion, from the a priori unstable to the apriori stable case*

THURSDAY

9h-9h45 **R. Krikorian** *Density of reducible quasi-periodic cocycles on* $\mathbb{T}^2 \times SU(2)$ *in the smooth case.*

9h45-10h30 **K. Khanin** *On renormalization and rigidity for circle maps with breaks*

pause

10h45-11h30 **C. Chavaudret** *Reducibility of quasi-periodic cocycles under a Brjuno-Rüssmann arithmetical condition*

11h30-12h15 **M.-C. Arnaud** *Variation on a theorem due to Birkhoff: invariant manifolds for conservative twisting dynamics*

Lunch break

16h30-17h15 **A. Katok** *Applications of KAM method to rigidity of group actions; recent progress, difficulties and prospects*

17h15-18h **G. Popov** *Isospectal Deformations KAM tori and Spectral Rigidity*

pause

18h15-19h **M. Benedicks** *Problems on Evolution equations and coupled map lattices*

FRIDAY

9h-9h45 **C. Matheus** *A coding-free approach to the Lyapunov exponents of Teichmuller curves*

9h45-10h30 **J. Graczyk** *Metric properties of mean wiggly continua*

pause

10h45-11h30 **J. de Simoi** *High energy dynamics of some piecewise smooth Fermi-Ulam models*

11h30-12h15 **R. de la Llave** *Quasi-periodic solutions for some ill-posed Hamiltonian evolution equations*