

ESI

**The Erwin Schrödinger International
Institute for Mathematical Physics**

Boltzmannngasse 9
A-1090 Wien, Austria

**Workshop on
RENORMALIZATION IN DYNAMICAL
SYSTEMS**

October 29th - November 2nd, 2007

Organizers: G. Gentile, H. Grosse, G. Huisken, V. Mastropietro

Monday October 29th, 2007

- 11:30 - 12:30 Hakan Eliasson
KAM for the non-linear Schrödinger equation
- 12:30 – 14:00 Lunch break
- 14:00 – 15:00 Raphael Krikorian
KAM-Liouville theory for quasi-periodic cocycles

Tuesday October 30th, 2007

- 10:30 – 11:30 Joao Lopes Dias
*Multidimensional renormalization for Brjuno-like
rotation vectors*
- 11:30 – 12:30 Michela Procesi
Periodic solutions for the nonlinear Schrödinger equation
- 12:30 – 14:00 Lunch break
- 14:00 – 15:00 Henk Broer (to be confirmed)
On Parametrized KAM theory

Wednesday October 31st , 2007

10:30 – 11:30 Jiangong You
The rigidity of reducibility for cocycles on $T X SO(N, R)$

11:30 – 12:30 Sasa Kocic
Renormalization of vector fields with applications to invariant tori and reducibility problems

12:30 – 14:00 Lunch break

14:00 – 15:00 Pierre Moussa
Geometrical renormalization and interval exchange maps

Thursday November 1st , 2007

10:30 – 11:30 Hans Jauslin
Resonances in classical and quantum Hamiltonian systems

11:30 – 12:30 Vered Rom-Kedar
Towards proving that the smoothed Boltzmann gas is not ergodic

12:30 – 14:00 Lunch break

14:00 – 15:00 Joao Barata
Stability for quasi-periodically perturbed Hill's equations

Friday November 2nd , 2007

10:30 – 11:30 Michele Bartuccelli
Energy and ladder methods for dissipative PDEs

11:30 – 12:30 Yingfei Yi
Quasi-periodic breathers in Hamiltonian networks

All lectures take place at the ESI Boltzmann Lecture Hall