

Microlocal analysis and spectral theory

CIRM, September 23rd to 27th 2013

Monday, September 23rd

09:00 - 10:00 **J.-M. Bony** (Polytechnique)

Deux ou trois choses que je sais de Johannes

10:30 - 11:30 **F. Klopp** (Jussieu)

Interacting electrons in a random environment: a simple one-dimensional model

11:30 - 12:30 **D. Robert** (Nantes)

*Spectral estimates and random weighted Sobolev inequalities
for Schrödinger operators*

14:30 - 15:30 **N. Burq** (Orsay)

*Microlocal analysis of the Dirichlet-Neumann operator in rough domains,
application to the study of the water-waves system*

15:30 - 16:30 **F. Faure** (Grenoble)

Spectral bands and semiclassical zeta function of contact Anosov flows

17:00 - 18:00 **C.-Y. Hsiao** (Cologne)

Szegő kernel asymptotics for high power of CR line bundles

Tuesday, September 24th

09:00 - 10:00 **X. P. Wang** (Nantes)

The Kramers-Fokker-Planck equation with a short-range potential

10:30 - 11:30 **M. Zworski** (Berkeley)

Numerical and experimental advances in chaotic scattering

11:30 - 12:30 **A. Melin** (Lund)

Asymptotic expansions for Fourier transforms over spherical caps

14:30 - 15:30 **L. Boutet de Monvel** (Jussieu)

Asymptotic equivariant Toeplitz index

15:30 - 16:30 **S. Vũ Ngọc** (Rennes)

Eigenvalue clusters for magnetic Laplacians in 2D

17:00 - 18:00 **G. Perelman** (Créteil)

Blow up dynamics near the ground state for the energy critical NLS

Wednesday, September 25th

09:00 - 10:00 **G. Lebeau** (Nice)

Strichartz estimates inside a convex domain

10:30 - 11:30 **T. Kawai** (Kyoto)

Linear differential operators of infinite order - another interaction of microlocal analysis and exact WKB analysis

11:30 - 12:30 **M. Hitrik** (Los Angeles)

Spectral clusters and Weyl laws for non-selfadjoint operators in two dimensions

Thursday, September 26th

09:00 - 10:00 **S. Nakamura** (Tokyo)

Applications of phase space analysis to scattering theory for discrete Schrödinger operators

10:30 - 11:30 **W. M. Wang** (Cergy-Pontoise)

Nonlinear Fourier series and applications to PDE

11:30 - 12:30 **G. Uhlmann** (Seattle)

Seeing through space time

14:30 - 15:30 **C. Gérard** (Orsay)

Construction d'états de Hadamard par le calcul pseudo-différentiel

15:30 - 16:30 **G. Popov** (Nantes)

Isospectral deformations, Mather's β -function and spectral rigidity

17:00 - 18:00 **F. Nier** (Rennes)

Boundary value problems for the geometric Kramers-Fokker-Planck equation

Friday, September 27th

09:00 - 10:00 **F. Hérau** (Nantes)

Tunnel effect for semiclassical random walk

10:30 - 11:30 **M. Dimassi** (Bordeaux)

Upper bound for the counting function of interior transmission eigenvalues

11:30 - 12:30 **B. Helffer** (Orsay)

From hypoellipticity for operators with double characteristics to semi-classical analysis of magnetic Schrödinger operators

Coffee break at 10:00 and 16:30. Lunch at 12:30 and dinner at 19:30.