

**Schedule for the follow-up workshop:****Selected Topics in Spectral Theory**

organized by: Bernard Helffer, Thomas Hoffmann-Ostenhof, Ari Laptev

Wednesday, January 19th

Opening 11h

**B. Helffer** 11:30-12:20

New examples of minimal partitions and open questions

**Lunch** 12:30-14:30**L. Geisinger** 14:30-15:20

Two-term spectral asymptotics for the Dirichlet Laplacian and its fractional powers

**U. Smilansky** 15:30-16:20

The nodal set and its boundary intersections

Thursday, January 20th

**P. Freitas** 10:00-10:50

Spectra of spherically symmetric manifolds

**Coffee Break** 11:00-11:30**M. Iversen** 11:30-12:20

Minimising Convex Combinations of Low Eigenvalues

**Lunch** 12:30-14:30**M. van den Berg** 14:30-15:20

Heat flow and spectrum for regions with Brownian boundary

**G. Vial** 15:30-16:20

Sum numerical computations for minimal partitions

Friday, January 21st

**P. T. Nam** 10:00-10:50

New bounds on the maximum ionization of atoms

**Coffee Break** 11:00-11:30

**P. Gerard** 11:30-12:20

Inverse spectral problems for Hankel operators and completely integrable systems

**Lunch** 12:20-14:30

**J. Kennedy** 14:30-15:20

Counterexamples to the Nodal Line Conjecture

**T. Østergaard Sørensen** 15:30-16:20

Real analyticity away from the nucleus of pseudorelativistic Hartree-Fock orbitals

Saturday, January 22nd

**Coffee** 11:00-11:30

**A. Pushnitski** 11:30-12:20

Asymptotics of Eigenvalue Clusters of the Perturbed Landau Hamiltonians

**Lunch** 12:30-14:30

**A. El Soufi** 14:30-15:30

On the uniform boundedness of the eigenvalues of non-homogeneous membranes and domains in manifolds

Sunday, January 23rd

**no talks**

Monday, January 24th

**S. Demirel** 10:00-10:50

Spectral estimates for quantum graphs

**Coffee Break** 11:00-11:30

**M. Loss** 11:30-12:20

Energy estimates for the random displacement model

**Lunch** 12:30-14:30

**G. Berkolaiko** 14:30-15:20

Nodal domains and spectral critical partitions on graphs

**S. Terracini** 15:30-16:20

On some optimal partition problems

Tuesday, January 25th

**R. Frank** 10:00-10:50

Nodal domain bounds for fractional Schrödinger operators and applications

**Coffee Break** 11:00-11:30

**V. Bonnaillie-Noël** 11:30-12:20

Nodal domains and minimal partitions

**Lunch** 12:30-14:30

**D. Yafaev** 14:30-15:20

Exponential Decay of Eigenfunctions of First Order Systems

**H. Kovarik** 15:30-16:20

Spectral bounds for two-dimensional magnetic Schrödinger operators

Wednesday, January 26th

**C. Lena** 10:00-10:30

Examples of nodal minimal partitions

**Coffee Break** 10:30-11:00

11:00-12:30 Talks and informal discussions including

**T. Ekholm** and **F. Portman**

Wednesday afternoon can be used for discussion and informal talks.

All lectures will take place in the ESI Schrödinger Lecture Hall.