

International Conference on Spectral Geometry
July 19-23, 2010

Monday, July 19

Morning Talks in 13 Carpenter

- 8:00-8:50 Breakfast in 13 Carpenter
8:50-9:00 Welcome (13 Carpenter)
9:00-9:50 Toshikazu Sunada, *Quantum walks*
10:00-10:50 Michael Levitin, *Fourier transform, null varieties,
and eigenvalues of the Laplacian*
11:10-12:00 Vladimir Sharafutdinov, *Local audibility of a hyperbolic metric*

Afternoon Talks in 008 Kemeny

- 3:00-3:50 Victor Guillemin, *Heat trace invariants for group actions
on Riemannian orbifolds, I*
4:10-5:00 Gregory Berkolaiko, *Nodal domains and spectral critical partitions
on graphs*
5:10-6:00 John Toth, *Generic bounds for Laplace eigenfunctions*
6:00-7:00 Wine and Cheese Reception, 300 Kemeny

Tuesday, July 20

Morning Talks in 008 Kemeny

- 8:00-9:00 Breakfast in 008 Kemeny
9:00-9:50 Pierre Albin, *Ricci Flow and the determinant of the Laplacian
on non-compact surfaces*
10:00-10:50 Peter Kuchment, *Parseval frames of exponentially decaying
Wannier functions*
11:10-12:00 Dorothee Scheuth, *Local symmetry of harmonic spaces
as determined by the spectra of small geodesic spheres*

Afternoon Talks in 008 Kemeny

- 3:00-3:50 Victor Guillemin, *Heat trace invariants for group actions
on Riemannian orbifolds, II*
4:10-5:00 Poster Session and Refreshments (004 Kemeny)
5:10-6:00 Craig Sutton, *Spectral isolation of bi-invariant metrics
on compact Lie groups*

Wednesday, July 21

Morning Talks in 13 Carpenter

- 8:00-8:50 Breakfast in 13 Carpenter
9:00-9:50 Andrew Hassell, *Neumann eigenfunctions and a “method of particular solutions” for computing them*
10:00-10:50 Dubi Kelmer, *A uniform spectral gap for congruence covers of a hyperbolic manifold*
11:10-12:00 Luc Hilliaret, *Generic simplicity using asymptotic separation of variables*

Afternoon Talks in 008 Kemeny

- 1:30-3:30 Hike or Boat Excursion
4:00-4:50 Peter Sarnak, *The distribution of mass and zeros of eigenfunctions on the modular surface, I*
5:10-6:00 Dmitry Jakobson, *Gauss curvature of random metrics*
6:30 Conference Banquet, Dartmouth Outing Club

Thursday, July 22

Morning Talks in 008 Kemeny

- 8:00-9:00 Breakfast in 008 Kemeny
9:00-9:50 Steven Zelditch, *Quantum ergodic restriction theorems*
10:00-10:50 Nalini Anantharaman, *Semiclassical measures for the Schrödinger equation on the torus*
11:00-11:45 Open problems session
11:45 Lunch in 300 Kemeny
1:00–2:30 Break-out Session (rooms to be designated)

Afternoon Talks in 008 Kemeny

- 3:00-3:50 Mikhail Shubin, *Solutions of non-linear equations in functions growing at infinity along the space variables*
4:00-4:50 Peter Sarnak, *The distribution of mass and zeros of eigenfunctions on the modular surface, II*
5:10-6:00 Thomas Kappeler, *On properties of the spectrum of the non-selfadjoint Zakharov-Shabat operator*
6:00 Marguerita and Pizza Party, 300 Kemeny

Friday, July 23

Morning Talks in 13 Carpenter

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| 8:00-8:50 | Breakfast in 13 Carpenter |
| 9:00-9:50 | Jeremy Marzuola, <i>Eigenfunction concentration and Strichartz estimates for planar polygonal domains</i> |
| 10:00-10:50 | Melissa Tacy, <i>Eigenfunction L^p-estimates on manifolds of constant negative curvature</i> |
| 11:10-12:00 | Steven Fulling, <i>Index theorems for quantum graphs</i> |