

**Sixth Saint-Petersburg Conference in Spectral Theory**  
dedicated to the memory of M.Sh.Birman  
**Euler Institute, Saint-Petersburg, Russia**

**July 3-8, 2014**

**PROGRAMME**

**THURSDAY 3 July:**

9:30–10:00: REGISTRATION

10:00–10:50: ANDREI SHKALIKOV (Moscow State University)  
*Results on perturbations, extensions and spectral decompositions for operator matrices*

COFFEE BREAK

11:30–12:20: ANDREAS KNAUF (FAU Erlangen)  
*Qualitative aspects of classical scattering*

LUNCH

14:30–15:20: LEONID FRIEDLANDER (University of Arizona, Tuscon)  
*Asymptotics for the Steklov eigenvalues*

15:30–16:20: DMITRI CHELKAK (PDMI RAS & Chebyshev Lab, SPbSU)  
*Sturm-Liouville operators with matrix potentials*

COFFEE BREAK

16:50–17:40: THOMAS ØSTERGAARD SØRENSEN (LMU Munich)  
*Pointwise estimates on derivatives of Coulombic wavefunctions*

18:00: BOAT TRIP WITH WELCOME PARTY

**FRIDAY 4 July:**

10:00–10:50: ALEXANDER APTEKAREV (Keldysh Inst. of Applied Math, Moscow)  
*Multiple orthogonal polynomials and Schrödinger operators on the  $d$ -lattice*

COFFEE BREAK

11:30–12:20: KONRAD SCHMÜDGEN (University of Leipzig)  
*The multi-dimensional moment problem*

LUNCH

14:30–15:20: ALEXANDER PUSHNITSKI (King's College London)  
*Spectral theory of discontinuous functions of self-adjoint operators*

15:30–16:20: ANTON BARANOV (SPbSU)  
*Spectral theory of rank one perturbations of selfadjoint operators*

COFFEE BREAK

16:50–17:40: FEDOR PETROV (PDMI RAS)  
*Virtual continuity: embedding theorems, nuclear operators and other aspects*

**SATURDAY 5 July:**

10:00–10:50: YULIA KARPESHINA (University of Alabama, Birmingham)  
*Quantum transport properties of Schrödinger operator with a limit-periodic potential in dimension two*

COFFEE BREAK

11:30–12:20: SERGEI KUKSIN (Paris, Ecole Polytechnique)  
*Eigenvalues of differential operators and long-time behaviour of solutions for weakly nonlinear PDE*

LUNCH

14:30–15:20: ALEXANDER KISELEV (University of Wisconsin, Madison)  
*Convergence to equilibrium for Fokker-Planck operators and efficiency of reactions in biology*

YOUNG MATHEMATICIANS SESSION

15:30–15:55: YULIA MESHKOVA (Chebyshev Lab SPbSU)  
*Operator error estimates for homogenization of the first initial boundary value problem for parabolic systems*

16:00–16:25: ANDREI PROKHOROV (SPbSU)  
*Regularity of electromagnetic fields in convex domains*

COFFEE BREAK

17:00–17:25: NIKITA RASTEGAEV (Chebyshev Lab SPbSU)  
*On spectral asymptotics of the Sturm-Liouville equation with singular weight of generalized Cantor type*

17:30–17:55: ANDREY MARTEMYANOV (SPbSU)  
*Monodromization and quasi-periodic perturbations of one-dimensional periodic Schrödinger operators*

**SUNDAY 6 July:**

FREE DAY

10:30: Excursion to Peterhof and Kronstadt (bus from Andersen Hotel)

**MONDAY 7 July:**

10:00–10:50: FREDERIC KLOPP (University of Paris, Jussieu)  
*Interacting one dimensional electrons in a Poisson random potential*

COFFEE BREAK

11:30–12:20: IGOR WIGMAN (King's College London)  
*Topologies of nodal sets of random band limited functions*

LUNCH

14:30–15:20: GREGORY ESKIN (University of California, Los Angeles)  
*Spectral asymptotics and the Aharonov-Bohm effect*

15:30–16:20: NIKOLAI SHIROKOV (SPbSU)  
*Zero modes of the Pauli operator and entire functions in weighted  $L_2$*

COFFEE BREAK

16:50–17:40: YURI KORDYUKOV (Institute of Mathematics RAS, Ufa)  
*Accurate semiclassical spectral asymptotics for a two-dimensional magnetic Schrödinger operator*

18:00–22:00 (TBC): CONFERENCE PARTY at the EIMI

**TUESDAY 8 July:**

10:00–10:50: ARNE JENSEN (Aalborg University)

*Resolvent expansions for the discrete one dimensional Schrödinger operator*

COFFEE BREAK

11:30–12:20: LEV KAPITANSKI (University of Miami)

*Continuous limit in dynamics with choice*

LUNCH

14:30–15:20: ILYA KACHKOVSKII (University of California, Irvine)

*Anderson localization for one-dimensional ergodic Schrödinger operators with piecewise monotonic sampling functions*