9th Saint-Petersburg Conference in Spectral Theory
Euler Institute, Saint-Petersburg, Russia

July 3-6, 2017

CONFERENCE PROGRAMME

MONDAY 3 July:

9:30–10:00:   REGISTRATION

10:00–10:50: Steven Zelditch (Northwestern University, USA). *Counting nodal domains of eigenfunctions on surfaces.*

COFFEE BREAK

11:20–12:10: Wencai Liu (University of California, Irvine, USA). *Sharp spectral transitions and growth of eigenfunctions of Laplacians on Riemannian manifolds.*

12:20–13:10: Ivan Veselic (TU Chemnitz, Germany). *Unique continuation estimates and lifting of eigenvalues.*

LUNCH

15:10–16:00: Igor Verbitsky (Universiry of Missouri, USA). *Global pointwise estimates of positive solutions to linear and non-linear PDE.*

COFFEE BREAK

16:30–17:00: Yunfeng Shi (Fudan University, China). *Exponential decay of the lengths of spectral gaps for quasi-periodic operators with Liouville frequencies.*

17:00–17:30: Nikita Senik (St.Petersburg State University, Russia). *On homogenization for non-self-adjoint locally periodic elliptic operators.*

18:30   BOAT TRIP WITH WELCOME PARTY

TUESDAY 4 July:

10:00–10:50: Volker Bach (Technische Universitaet Braunschweig, Germany). *Effective mean-field evolution equations for many-fermion systems and their accuracy.*

COFFEE BREAK

11:20–12:10: Karel Pravda-Starov (University of Rennes, France). *Generalized Mehler formula for time-dependent non-selfadjoint quadratic operators and propagation of singularities.*

12:20–13:10: Kirill Cherednichenko (Bath University, Great Britain). *Functional model for extensions of symmetric operators and applications to scattering theory.*

LUNCH

15:10–15:40: Alexander Hach (Technische Universitt Braunschweig, Germany). *Suppression of decoherence of a spin-boson system by time-periodic control.*

15:40–16:10: Ivan Gurianov (St.Petesburg State University, Russia). *Asymptotics of resonant tunneling in quantum waveguides with several equal resonators.*

COFFEE BREAK

16:40–17:10: Kirill Ryadovkin (St.Petersburg State University, Russia). *Boundary spectrum for the discrete Laplace operators on graphs embedded into half-plane.*

WEDNESDAY 5 July:

10:00–10:50: Dmitri Yafaev (University of Rennes, France, and St. Petersburg State University, Russia). *Quasi-diagonalization of Hankel operators.*

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COFFEE BREAK

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11:20–12:10: Grigori Rozenblioum (Chalmers University, Sweden). *Toeplitz operators with strongly singular symbols and Bergman type spaces of polyanalytic functions.*

12:20–13:10: Petru Cojuhari (AGH University of Science and Technology, Krakov, Poland). *Spectral analysis of perturbed Toeplitz operators.*

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LUNCH

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15:10–16:00: Alexander Nazarov (St.Petersburg department of V.A.Steklov Institute, Russia). *Spectral asymptotics for some 1D boundary value problems with self-similar weights.*

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COFFEE BREAK

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16:30–17:20: Victor Ivrii (University of Toronto, Canada). *Spectral asymptotics for fractional Laplacian.*

18:00: CONFERENCE DINNER

THURSDAY 6 JULY:

10:00–10:50: Victor Novokshenov (Ufa Science Center RAS, Russia). *Orthogonal polynomials and Painlevé equations.*

<center>COFFEE BREAK</center>

11:20–12:10: Gerard Teschl (University of Vienna, Austria). *Dispersion estimates for one-dimensional Schrödinger equations.*

12:20–13:10: Andrew Comech (Texas A&M University, USA). *Spectral stability of small amplitude solitary waves in the nonlinear Dirac equation.*

<center>LUNCH</center>

15:10–16:00: Valeriy Imaikin (LLS Diagnostic NDT Equipment, Moscow, Russia). *On continuation to the spectrum of the resolvent of the linearized problem of an electric field and charged particle interaction.*

<center>COFFEE BREAK</center>

16:30–17:20: Roman Romanov (St. Petersburg State University, Russia). *Reproducing kernel Hilbert spaces related to determinantal processes.*