Programme AMP 2024

The times indicated in the programme are in Mexico City time (UTC- 6h)

1. 05.08

   - 8:45 am

     Dr. Ramsés Mena Chávez. Director IIMAS-UNAM, Mexico

     Inauguration

   - 9:00-10:00 Fritz Gesztesy

     Continuity properties of the spectral shift function for massless Dirac operators and an application to the Witten index

   - 10:00-10:15 Intermission

   - 10:15-11:15

     Pavel Kurasov

     Maximal dissipative operators on metric graphs: hypergraphs and multiplicities

2. 06.08

   - 9:00-10:00 am Pavel Exner

     Schrödinger operators with channel-type potentials

   - 10:00-10:15 Intermission

   - 10:15-11:15 Ricardo Weder

     The Bernstein-Landau paradox in fusion plasmas. An operator theory point of view

   - 11:15-11:30 Intermission

- 11:30-12:30

  Gregory Berkolaiko

  Morse theory for eigenvalues of self-adjoint families

3. 07.08

   - 9:00-10:00 am Vjacheslav Yurko

     Method of spectral mappings in the inverse problem theory

   - 10:00-10:15 Intermission

   - 10:15-11:15 Christiane Tretter

     Challenges for non-selfadjoint spectral problems in analysis and computation

4. 08.08

   - 9:00-10:00 am Jan Dereziński

     Propagators on curved spacetimes

   - 10:00-10:15 Intermission

   - 10:15-11:15 Vladislav Kravchenko

     Analytic representations for solutions in inverse coefficient problems

   - 11:15-11:30 Intermission

   - 11:30-12:30 Sergei Avdonin

     Inverse problems for the Schrödinger operator on metric graphs

5. 09.08

   - 09.00-10:00 am Evgeny Korotyaev

     Schrödinger operators on periodic discrete and metric graphs

   - 10:00-10:15 Intermission

   - 10:15-11:15 Bruno Després

     Scattering structure of linearized Vlasov-Poisson equations

6. 10:08

- 09:00-10:00 am Mikhail Ignatiev

  Direct and inverse scattering for differential systems with singularity

- 10:00-10:15 Intermission
- 10:15-11:15 Ramazan Ercan

  The direct and inverse scattering problems for the first-order linear discrete system associated with the derivative NLS system

- 11:15-11:30 Intermission
- 11:30-12:30 Abdon Choque-Rivero

  The matrix Toda equation

7. 12:08

   - 9:00-10:00 am Julien Ricaud

     Nonlinear Dirac equation with Soler-type nonlinearity

   - 10:00-10:15 Intermission
   - 10:15-11:15 Tuncay Aktosun

     Soliton solutions to a system of nonlinear evolution equations associated with a third-order ordinary linear differential equation

8. 13:08

   - 09:00- 10:00 am Natalia Bondarenko

     Inverse problems for the fourth-order differential operators

   - 10:0-10:15 Intermission
   - 10:15-11:15 Olaf Post

     Different variants of generalized operator norm convergence

   - 11:15-11:30 Intermission
   - 11:30-12:30 Jussi Behrndt

     Spectral shift functions and Dirichlet-to-Neumann maps

9. 14.08

   - 09:00-10:00 am Sergey Buterin

     On damping a control system of arbitrary order with global aftereffect on a temporal tree

   - 10:00-10:15 Intermission

   - 10:15-11:15 Victor Rykhlov

     On multiple completeness of root functions of certain classes of ordinary differential pencils of operators

10. 15.08

    - 09.00-10.00 am Maria Kuznetsova

      On inverse problems for operators with frozen arguments

    - 10:00-10:15 Intermission

    - 10:15-11:15

      Vassilis Papanicolaou

      Discrete and continuous non-self-adjoint Hill operators whose spectrum is a real interval

    - 11:15-11:30 Intermission

    - 11:30-12:30

      Mostafa Sabri

      Ergodic Theorems for Continuous-time Quantum Walks on Crystal Lattices and the Torus

11. 16.08

    - 09:00-10:00 am Wencai Liu

      Algebraic geometry, complex analysis and combinatorics in spectral theory of periodic graph operators

    - 10:00-10:15 Intermission

- 10:15-11:15

  Delio Mugnolo

  The heat kernel on metric graphs and its geometric significance

12. 17.08

- 09:00-10:00 am Mehmet Unlu

  The Marchenko method for the general system of derivative nonlinear Schrödinger equations

- 10:15-11:15 Sergei Avdonin (University of Alaska Fairbanks, USA), Pavel Kurasov (Stockholm University, Sweden), Grigori Rozenblioum (Chalmers University of Technology, Sweden), Ricardo Weder (Universidad Nacional Autónona de México, Mexico).

  Dimitri R. Yafaev. In memoriam.