

Program of the International Conference “Painlevé Equations and Related Topics”

June 17

Arrival day

11:00 – 17:00 **Registration in Euler Institute**

June 18

9:00 – 10:30 **Registration, coffee**

10:30 – 11:00 **OPENING THE CONFERENCE**

Morning session

11:00 – 11:50 **Sergey Yu. Slavyanov** Antiquantization of quantum models as a tool for generating Painlevé equations

11:50 – 12:00 **Mikhael Fokanov** Painlevé equations generated by the Schrödinger equation with supersymmetric potential

12:00 – 12:30 **Coffee break**

12:30 – 13:30 **Alexander D. Bruno** Plane Power Geometry for single ODE and Painlevé equations

13:30 – 15:00 **Lunch**

Afternoon session

15:00 – 15:30 **Irina V. Goryuchkina** On convergence of a formal solution to an ODE

15:30 – 16:30 **Boris A. Dubrovin** Critical behavior of solutions to Hamiltonian PDEs and special Painlevé transcendents

16:30 – 17:00 **Coffee break**

17:00 – 17:30 **Alexander Ya. Kazakov and Sergey Yu. Slavyanov** Integral Euler symmetries for confluent Heun equation and symmetries of Painlevé equation P^5

17:30 – 18:00 **Kouichi Takemura** Integral transformation of Heun’s equation and some applications

18:00 **WELCOME PARTY**

June 19

Morning session

10:00 – 10:30 **Alexander D. Bruno** Space Power Geometry for an ODE and Painlevé equations

10:30 – 11:10 **Irina V. Goryuchkina** Asymptotic expansions and forms of solutions to the sixth Painlevé equation

11:10 – 11:30 **Coffee break**

11:30 – 12:30 **Davide Guzzetti** Solving PVI by Isomonodromy Deformations

12:30 – 13:00 **Ilya Vyugin** Local expansions for solutions of the Schlesinger equation

13:00 – 13:30 **Yurii V. Brezhnev** The sixth Painlevé transcendent as a generator of uniformizable orbifolds

13:30 – 15:00 **Lunch**

Afternoon session

15:00 – 15:30 **Alexander B. Batkhin and Natalia V. Batkhina** Exact simple solutions to PVI

15:30 – 16:00 **Dmitrii P. Novikov** A monodromy problem and some functions connected with Painlevé VI

16:00 – 16:30 **Yoshikatsu Sasaki** Gauge transformation of the sixth Painlevé equation

16:30 – 17:00 **Coffee break**

17:00 – 17:30 **Anastasya V. Parusnikova** Asymptotic expansions of solutions to the fifth Painlevé equation

17:30 – 18:00 **Alexander Ya. Kazakov** Euler integral symmetry and deformed hypergeometric equation

18:00 – 18:30 **Arezki Kessi and Y. Adjabi** Third order differential equation with Painlevé property

June 20

PETRODVORETS EXCURSION

BANQUETTE (with dances)

June 21

Morning session

10:00 – 11:00 **Mikhail V. Babich** On rational canonical parametrization of isomonodromic deformation equations phase space

11:00 – 11:30 **Coffee break**

11:30 – 12:30 **Philip Boalch** Simply-laced isomonodromy systems

12:30 – 13:00 **Yulia P. Bibilo and Renat R. Gontsov** On the Malgrange isomonodromic deformations of non-resonant meromorphic connections

13:00 – 13:30 **Dmitry V. Artamonov** The Schlesinger system and isomonodromic deformations of bundles with connections on Riemann surfaces

13:30 – 15:00 **Lunch**

Afternoon session

15:00 – 15:30 **Vladimir Tsegel'nik** Analytical Properties of Solutions to Some Nonlinear Differential Equations and Their Systems Associated with Models of Random-matrix Type

15:30 – 16:00 **Dmitry Korotkin and Peter Zograf** From the tau function of Painlevé VI equation to the geometry of moduli spaces

16:00 – 16:30 **Vladimir G. Lysov** Asymptotics of Angelesco polynomials and double scaling limit at pushing point

16:30 – 17:00 **Coffee break**

17:00 – 17:30 **Vladimir P. Leksin** Isomonodromic deformations and Jordan-Pochhammer systems

17:30 – 18:00 **Valentina A. Golubeva** On Fuchsian reduction of differential equations

June 22

Morning session

09:00 – 09:30 **Kohei Iwaki** Parametric Stokes phenomenon for the second Painlevé equation

09:30 – 10:00 **Christian Klein** Dissipationless shocks and Painlevé equations

10:00 – 10:30 **Coffee break**

10:30 – 11:00 **Viktor Novokshenov** Tronquée solutions of the Painlevé II equation

11:00 – 11:30 **Vladimir Matveev** Quasi-rational solutions to the focusing NLS equation and multiple rogue-waves generation

11:30 – 12:00 **Pantelis A. Damianou** Lotka–Volterra equations in three and four dimensions satisfying the Kowalevski–Painlevé property

12:00 – 12:30 **Rustem N. Garifullin** Phase shift for some special solution Korteweg–de Vries equation

12:30 – 13:00 **Michael Hay** Bilinearization and Special Solutions to the Discrete Schwarzian KdV Equation

13:00 – 13:30 **Yousuke Ohyama** Particular solutions of q -Painlevé equations and q -hypergeometric equations

13:30 – 15:00 **Lunch**

Afternoon session

15:00 – 15:30 **Pavlos Xenitidis** Reductions on the lattice and Painlevé equations

15:30 – 16:00 **Alexander Tovbis and Marco Bertola** Asymptotics at the gradient catastrophe points and Painlevé 1 transcendents: semiclassical focusing NLS and orthogonal polynomials cases

16:00 – 16:30 **Marco Bertola** Fredholm determinants and noncommutative Painlevé II

16:30 – 17:00 **Coffee break**

17:00 **BOAT TOUR**

June 23

Morning session

10:00 – 11:00 **Irina Astashova** Asymptotic Classification of Solutions to 3rd and 4th Order Emden–Fowler Type Differential Equations

11:00 – 11:30 **Coffee break**

11:30 – 12:00 **Vasilisa A. Shramchenko** A generalization of the Weierstrass sigma-function

12:00 – 12:30 **Svetlana Ezhak** On Dependence of the First Eigenvalue of the Sturm – Liouville Problem with Dirichlet Boundary Conditions on Parameter of Integral Condition

12:30 – 13:00 **Vera V. Kartak** Solution of the equivalence problem for the second order ODE's with the degenerate Cartan's invariants

13:00 – 13:30 **Elena Karulina** On some estimates of the minimal eigenvalue for the Sturm – Liouville problem with third-type boundary conditions and integral condition

14:00 **CLOSING THE CONFERENCE**