

Analytic Theory of Differential and Difference Equations

Online conference dedicated to
the memory of Andrey Bolibrukh

January 28 – February 3, 2021

Conference Program

January 28, Thursday

Opening day

ATTENTION: the schedule is set to local Moscow time (=UTC+3)

17.00 Opening

Dmitrii Treschev

Chairman: Claude Mitschi

17.10 **Frank Loray**

Projective structures and neighborhoods of rational curves

18.00 *Questions + Small break*

18.30 **Askold Khovanskii**

On solvability of linear differential equations by quadratures

19.20 *Questions + Small break*

20.00 **Jacques-Arthur Weil**

Darboux transformations for orthogonal differential systems
and differential Galois theory

20.30 *Questions*

January 29, Friday

Chairman: Sergei Abramov

- 12.00 **Andrey Mironov**
On commuting difference operators
- 12.50 *Questions + Small break*
- 13.30 **Yousuke Ohyama**
 q -Stokes phenomenon of basic hypergeometric equations and
the Painlevé equations
- 14.20 *Questions + Large break*
- 17.00 **Jorge Mozo**
Nilpotent singularities of foliations of generalized Poincaré–
Dulac type
- 17.30 *Questions + Small break*
- 18.00 **Ilya Kossovskiy**
Real-analytic coordinates for smooth strictly pseudoconvex CR
structures
- 18.50 *Questions + Small break*
- 19.30 **Laurent Stolovitch**
Geometry of hyperbolic Cauchy–Riemann singularities and
KAM-like theory for holomorphic involutions
- 20.20 *Questions*

January 30, Saturday
Memorial day

Chairman: Alexey Glutsyuk

- 17.00 **Armen Sergeev**
Working together with Andrey Bolibrukh
- Claude Mitschi**
Memories of Andrey Bolibrukh's time in Strasbourg
- Vladimir Roubtsov**
Few very personal memoirs about meetings with Andrei
- Yulij Ilyashenko**
Andrey Bolibrukh: from a graduate student to academician
- 18.30 **Claude Sabbah**
Andrey Bolibrukh and the (Miwa) theta divisor

February 1, Monday

Chairman: Frank Loray

- 17.00 **Marta Mazzocco**
Quantum Painlevé monodromy manifolds and Sklyanin–
Painlevé algebra, I
- 17.50 *Questions + Small break*
- 18.30 **Vladimir Roubtsov**
Quantum Painlevé monodromy manifolds and Sklyanin–
Painlevé algebra, II
- 19.20 *Questions + Small break*
- 20.00 **Yulia Bibilo**
Application of Painlevé 3 equations to dynamical systems on
2-torus modeling Josephson junction
- 20.50 *Questions*

February 2, Tuesday

Chairman: Vladimir Roubtsov

- 12.00 **Davide Guzzetti**
Isomonodromic Laplace transform with coalescing eigenvalues
and confluence of Fuchsian singularities
- 12.50 *Questions + Small break*
- 13.30 **Claude Sabbah**
Isomonodromic degenerations of irregular singularities
- 14.20 *Questions + Large break*

Chairman: Marta Mazzocco

- 17.00 **Vasilisa Shramchenko**
Algebro-geometric solutions to the 2×2 Schlesinger systems
- 17.50 *Questions + Small break*
- 18.30 **Vladimir Dragović**
Dynamics of extremal polynomials, isomonodromic and iso-
harmonic deformations
- 19.20 *Questions*

February 3, Wednesday

Closing day

Chairman: Jacques-Arthur Weil

- 17.00 **Alberto Lastra**
On Gevrey asymptotics for linear singularly perturbed equations with linear fractional transforms
- 17.30 *Questions + Small break*
- 18.00 **Javier Sanz**
Right inverses for the asymptotic Borel map in ultraholomorphic classes on sectors
- 18.30 *Questions + Small break*
- 19.00 **Changgui Zhang**
On the vanishing of coefficients of the powers of a theta function
- 19.30 *Questions + Closure*

Video-posters

(available at any time during the conference)

Sergei Abramov

Sequences in the role of coefficients of difference operators

Aset Durmagambetov

New estimates of the potential in the Schrödinger equation

Renat Gontsov

Convergence of generalized power series solutions of q -difference equations:
the case without small divisors

Gerardus Helminck

Darboux transformations of the dKP hierarchy and its strict version

Arsenii Shcherbakov

Uniformization of holomorphic foliations with hyperbolic leaves

Tsvetana Stoyanova

Stokes matrices of a reducible equation with two irregular singularities of
Poincaré rank 1 via monodromy matrices of a reducible Heun type equation