

Workshop
Complex ODEs: Asymptotics, Orthogonal Polynomials
and Random Matrices

May 14–18, 2018,

THE CENTRO DI RICERCA MATEMATICA ENNIO DE GIORGI, Pisa, Italy

Monday, May 14

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| 09:30–10:30 | <i>Registration & opening</i> |
| 10:30–11:30 | Emmanuel Paul
<i>The Painleve II equation from the isomonodromic point of view</i> |
| 11:30–12:30 | Jean-Pierre Ramis
<i>The character variety of the q-analog of the sixth Painleve equation</i> |
| 12:30–14:00 | <i>Lunch break</i> |
| 14:00–15:00 | Ryszard Szwarc
<i>The order of indeterminate moment problem</i> |
| 15:00–16:00 | Christian Berg
<i>A two parameter extension of the Urbanik semigroup</i> |
| 16:00–16:30 | <i>Coffee break</i> |
| 16:30–17:30 | Alberto Lastra
<i>Gevrey multiscale expansions of singular solutions of PDEs with cubic nonlinearity</i> |

Tuesday, May 15

- 09:30–10:30 Marc Adler
The correlation kernel for a new Double Aztec Diamond with blocks
- 10:30–11:00 Yang Chen
The smallest eigenvalue of large Hankel matrices
- 11:00–11:30 *Coffee break*
- 11:30–12:30 Francisco Marcellan
Non-Abelian integrable Hierarchies: Matrix biorthogonal polynomials and spectral perturbations
- 12:30–14:00 *Lunch break*
- 14:00–15:00 Frederic Fauvet
Resurgence monomials and moduli of dynamical systems
- 15:00–16:00 Ricardo Schiappa
Painleve equations, resurgence, and quantization
- 16:00–16:30 *Coffee break*

Wednesday, May 16

- 09:00–10:00 Pierre Van Moerbeke
*Lozenge tilings of non-convex regions and asymptotic fluctuations:
a new universality class*
- 10:00–11:00 Kenier Castillo
On zeros of paraorthogonal polynomials on the unit circle
- 11:00–11:30 *Coffee break*
- 11:30–12:30 Arpad Baricz
Zeros of orthogonal polynomials near an algebraic singularity of the measure
- 12:30– *Lunch break and free afternoon*

Thursday, May 17

- 10:00–11:00 Mattia Cafasso
Non-commutative Painleve equations and systems of interacting particles
- 11:00–11:30 *Coffee break*
- 11:30–12:30 Alexander Aptekarev
Jacobi matrices on trees and multiple orthogonal polynomials
- 12:30–14:00 *Lunch break*
- 14:00–15:00 Nicholas Witte
Computing indices of variance, cumulants of mutual information entropy and allied statistics in Random Matrix Theory
- 15:00–16:00 Marco Chiani
On the probability that all eigenvalues of random matrices lie within an interval
- 16:00–16:30 *Coffee break*
- 16:30–17:30 Maciej Nowak
Extreme events versus extreme random matrices

Friday, May 18

- 09:00–10:00 Diego Dominici
Generalized Hahn polynomials of type I
- 10:00–11:00 Yang Chen
*Asymptotic gap probability distributions of the Gaussian unitary ensembles
and the Jacobi unitary ensembles*
- 11:00–11:30 *Coffee break*
- 11:30–12:30 Eugene Kanzieper
Noise analysis of eigenlevel sequences in quantum chaotic systems
- 12:30– *Closing and Lunch*