

Workshop “Asymptotics in dynamics, geometry and PDEs; generalized Borel summation”

All lessons to be held in Aula Dini, Palazzo del Castelletto

Date & Time Speaker & Title

Monday, October 12

09:00 - 10:00 General registration and coffee

10:10 - 10:20 Introduction to the workshop

10:20 - 11:20 **Filippo Bracci**
“One resonant biholomorphisms and applications to quasi-parabolic germs”

11:40 - 12:40 **Michael Yampolsky**
“TbA”

14:45 - 15:45 **Adam Epstein**
“TbA”

15:45 - 16:15 Coffee Break

16:15 - 17:15 **Emmanuel Paul**
“Moduli space of foliations and curves defined by a generic function”

17:45 - 18:45 **Reinhard Schäfke**
“An analytic proof of parametric resurgence for some second order linear equations”

Tuesday, October 13

09:00 - 10:00 **G rard Iooss**
“On the existence of quasipattern solutions of the Swift-Hohenberg equation and of the Rayleigh-Benard convection problem”

10:00 - 10:20 Coffee Break

10:20 - 11:20 **Joel Lebowitz**
“Time Asymptotic Behavior of Schrodinger Equation of Model Atomic Systems with Periodic Forcings: To Ionize or Not”

11:40 - 12:40 **Saleh Tanveer**
“Borel Summability methods applied to PDE initial value problems”

15:00 - 16:00 **Harris J Silverstone**
“Kramers-Langer-modified radial JWKB equations and Borel summability”

16:00 - 16:30 Coffee Break

16:30 - 17:30 **Carl Bender**
“Complex dynamical systems”

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Wednesday, October 14

- 09:00 - 10:00 **Mitsuhiro Shishikura**
“Invariant sets for irrationally indifferent fixed points of holomorphic functions”
- 10:00 - 10:20 Coffee Break
- 10:20 - 11:20 **Jean Ecalle**
“Four recent advances in resummation and resurgence theory”
- 11:40 - 12:40 **Javier Ribon**
“Multi-summability of unfoldings of tangent to the identity diffeomorphisms”

Thursday, October 15

- 09:00 - 10:00 **Stefan Weinzierl**
“Feynman graphs in perturbative quantum field theory”
- 10:00 - 10:20 Coffee Break
- 10:20 - 11:20 **Dirk Kreimer**
“An analysis of Dyson Schwinger equations using Hopf algebras”
- 11:40 - 12:40 **David Broadhurst**
“TbA”
- 15:00 - 16:00 **Shingo Kamimoto**
“On a Schrödinger operator with a merging pair of a simple pole and a simple turning point, I WKB theoretic transformation to the canonical form”
- 16:00 - 16:30 Coffee Break
- 16:30 - 17:30 **Tatsuya Koike**
“On a Schrödinger operator with a merging pair of a simple pole and a simple turning point, II Computation of Voros coefficients and its consequence”
- 18:00 - 19:00 **Carlos Matheus**
“Multilinear estimates for the 2D and 3D Zakharov-Rubenchik systems”

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Friday, October 16

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| 09:00 - 10:00 | Jean-Yves Thibon
“TbA” |
| 10:00 - 10:20 | Coffee Break |
| 10:20 - 11:20 | Valerio Toledano Laredo
“TbA” |
| 11:40 - 12:40 | Yoshitsugu Takei
“On the turning point problem for instanton-type solutions of (higher order) Painlevé equations” |
| 14:30 - 15:30 | Jasmin Raissy
“Torus actions in the normalization problem” |
| 15:30 - 15:50 | Coffee Break |
| 15:50 - 16:50 | Sergei Yakovenko
“TbA” |