

**Mathematics and Physics Unit “Multiscale Analysis, Modeling and Simulation”
Top Global University Project, Waseda University
International Workshop on
“Fundamental Problems in Mathematical and Theoretical Physics”**

Date: July 18 – July 22, 2016

Venue: 04 Conference Room, 2nd Floor, 55S Bldg., Waseda University, Nishi-Waseda Campus

早稲田大学 西早稲田キャンパス 55号館 S棟 2階 第4会議室

Part I. Quantum Physics

July 18, Monday

- 10:30 – 12:30 Lecture “From the Quantum Zeno Effect to the Master Equation” I
Saverio PASCAZIO (University of Bari, Italy)
- 14:30 – 16:00 Seminar “A Quantum Particle in a Cavity with Alternating Boundary Conditions”
Giancarlo GARNERO (University of Bari, Italy)
- 16:30 – 18:00 Lecture “From the Quantum Zeno Effect to the Master Equation” II
Saverio PASCAZIO (University of Bari, Italy)

July 19, Tuesday

- 10:30 – 12:30 Lecture “Quantum Thermodynamics and Canonical Typicality” I
Paolo FACCHI (University of Bari, Italy)
- 14:30 – 16:00 Lecture “Quantum Control” I
Daniel BURGARTH (Aberystwyth University, UK)
- 16:30 – 18:00 Lecture “Quantum Thermodynamics and Canonical Typicality” II
Paolo FACCHI (University of Bari, Italy)

July 20, Wednesday

- 10:30 – 12:30 Lecture “Quantum Control” II
Daniel BURGARTH (Aberystwyth University, UK)

Mathematics and Physics Unit “Multiscale Analysis, Modeling and Simulation”
Top Global University Project, Waseda University
**International Workshop on
“Fundamental Problems in Mathematical and Theoretical Physics”**

Date: July 18 – July 22, 2016

Venue: 04 Conference Room, 2nd Floor, 55S Bldg., Waseda University, Nishi-Waseda Campus
早稲田大学 西早稲田キャンパス 55号館 S棟 2階 第4会議室

Part II. Mathematical Physics

July 20, Wednesday

13:30 – 15:00 Vladimir Georgiev (University of Pisa), **Minicourse I**
Scattering of small solutions of the cubic NLS with short range potential I

15:30 – 17:00 Baoxiang Wang (Peking University), **Minicourse I**
 U_2 , V_2 -modulation spaces and nonlinear dispersive equations I

July 21, Thursday

10:30 – 12:00 Vladimir Georgiev (University of Pisa), **Minicourse II**
Scattering of small solutions of the cubic NLS with short range potential II

13:00 – 13:30 Masayuki Hayashi (Waseda University)
Well-posedness for a generalized derivative nonlinear Schrödinger equation

13:40 – 14:10 Ryosuke Hyakuna (Waseda University)
Local well-posedness for the nonlinear Schrödinger equation in one space dimension

14:20 – 15:00 Yuta Wakasugi (Nagoya University)
The Cauchy problem for the nonlinear damped wave equation with slowly decaying data

15:30 – 17:00 Baoxiang Wang (Peking University), **Minicourse II**
 U_2 , V_2 -modulation spaces and nonlinear dispersive equations II

July 22, Friday

- 10:30 – 12:00 Vladimir Georgiev (University of Pisa), **Minicourse III**
Scattering of small solutions of the cubic NLS with short range potential III
- 13:30 – 15:00 Baoxiang Wang (Peking University), **Minicourse III**
 U_2 , V_2 -modulation spaces and nonlinear dispersive equations III
- 15:30 – 16:30 Nobu Kishimoto (Kyoto University)
Weak dispersion limit for nonlinear Schrödinger equations with higher order corrections
- 16:40 – 17:40 Jun-ichi Segata (Tohoku University)
Refinement of Strichartz estimates for Airy equation and application
- 18:00 – Reception at Takeuchi Lounge

Organized by Hiromichi Nakazato · Tohru Ozawa · Kazuya Yuasa

Supported by Top Global University Project, Waseda University / Institute of Mathematical Fluid Dynamics, Waseda University