

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 24 – July 28, 2017

Venue: Conference Room No.2, 1st Floor, 55N Bldg., Nishi-Waseda Campus, Waseda University
早稲田大学 西早稲田キャンパス 55 号館 N 棟 1 階 第 2 会議室

Part I. Quantum Physics

July 24, Monday

10:30 – 12:30 Saverio Pascazio (University of Bari, Italy), **Minicourse I**
Wave Propagation: From d'Alembert to Dirac I

14:45 – 16:15 Paolo Facchi (University of Bari, Italy), **Minicourse I**
Operator Semigroups and Product Formulae I

16:30 – 18:00 Saverio Pascazio (University of Bari, Italy), **Minicourse II**
Wave Propagation: From d'Alembert to Dirac II

July 25, Tuesday

10:30 – 12:30 Paolo Facchi (University of Bari, Italy), **Minicourse II**
Operator Semigroups and Product Formulae II

14:45 – 16:15 Saverio Pascazio (University of Bari, Italy), **Minicourse III**
Wave Propagation: From d'Alembert to Dirac III

16:30 – 18:00 Paolo Facchi (University of Bari, Italy), **Minicourse III**
Operator Semigroups and Product Formulae III

July 26, Wednesday

10:30 – 12:30 Saverio Pascazio (University of Bari, Italy), **Minicourse IV**
Wave Propagation: From d'Alembert to Dirac IV

and/or

Paolo Facchi (University of Bari, Italy), **Minicourse IV**
Operator Semigroups and Product Formulae IV

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Part II. Mathematical Physics

July 26, Wednesday

13:30 – 15:00 Tai-Chia Lin (National Taiwan University), **Minicourse I**
Analysis of nonlinear Schrödinger equations and its applications I

15:30 – 17:00 Yoshihiro Tonegawa (Tokyo Institute of Technology), **Minicourse I**
A short course on Brakke's mean curvature flow I

July 27, Thursday

10:30 – 12:00 Tai-Chia Lin (National Taiwan University), **Minicourse II**
Analysis of nonlinear Schrödinger equations and its applications II

13:00 – 13:40 Kazumasa Fujiwara (Waseda University)
Lifespan of strong solutions to the periodic derivative nonlinear Schrödinger equation

13:50 – 14:30 Masayuki Hayashi (Waseda University)
Remarks on the nonlinear Schrödinger equations in a general domain

14:40 – 15:20 Luigi Forcella (Scuola Normale Superiore - Pisa)
Double scattering channels for 1D NLS and a generalization to higher dimensions

15:30 – 17:00 Yoshihiro Tonegawa (Tokyo Institute of Technology), **Minicourse II**
A short course on Brakke's mean curvature flow II

July 28, Friday

- 10:30 – 12:00 Tai-Chia Lin (National Taiwan University), **Minicourse III**
Analysis of nonlinear Schrödinger equations and its applications III
- 13:30 – 15:00 Yoshihiro Tonegawa (Tokyo Institute of Technology), **Minicourse III**
A short course on Brakke's mean curvature flow III
- 15:30 – 16:20 Hironobu Sasaki (Chiba University)
Small analytic solutions to the Hartree equation
- 16:40 – 17:30 Shuji Machihara (Saitama University)
Remarks on the ill-posedness for the Dirac-Klein-Gordon system
- 18:00 – Reception at Conference Room No.2

Organized by Vladimir Georgiev, Hiromichi Nakazato, Tohru Ozawa, Kazuya Yuasa

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