Mathematics and Physics Unit "Multiscale Analysis, Modelling and Simulation"
Top Global University Project, Waseda University
International Workshop on
"Fundamental Problems in Mathematical and Theoretical Physics"

Date: July 22 – July 26, 2019
Venue: Large Conference Room, 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 大会議室

Part I. Quantum Physics

July 22 Monday

10:30 - 12:00	Saverio Pascazio (University of Bari, Italy), **Minicourse** "Quantum Time Evolutions" I
14:45 - 16:15	Daniel Burgarth (Macquarie University, Australia), **Minicourse** "Quantum Maps" I
16:30 - 18:00	Paolo Facchi (University of Bari, Italy), **Minicourse** "Classical and Quantum Fluctuation Relations" I

July 23 Tuesday

10:30 - 12:00	Daniel Burgarth (Macquarie University, Australia), **Minicourse** "Quantum Maps" II
14:45 - 16:15	Paolo Facchi (University of Bari, Italy), **Minicourse** "Classical and Quantum Fluctuation Relations" II
16:30 - 18:00	Saverio Pascazio (University of Bari, Italy), **Minicourse** "Quantum Time Evolutions" II

July 24 Wednesday

10:30 - 12:00	Paolo Facchi (University of Bari, Italy), **Minicourse** "Classical and Quantum Fluctuation Relations" III

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Part II. Mathematical Physics

July 24, Wednesday

13:00 - 14:00   Luis Vega (Basque Center for Applied Mathematics, Spain), **Minicourse**
"The vortex filament equation, the Talbot effect and non-circular jets" I

14:10 - 15:10   Luis Vega (Basque Center for Applied Mathematics, Spain), **Minicourse**
"The vortex filament equation, the Talbot effect and non-circular jets" II

15:40 - 16:40   Luca Fanelli (Sapienza University of Rome, Italy), **Minicourse**
"Uniform Resolvent Estimates and the point spectra of
non self-adjoint relativistic Hamiltonians" I

16:50 - 17:50   Vladimir Georgiev (University of Pisa, Italy), **Minicourse**
"Fractional NLS and semilinear half - wave equations" I

July 25, Thursday

10:00 - 11:00   Luca Fanelli (Sapienza University of Rome, Italy), **Minicourse**
"Uniform Resolvent Estimates and the point spectra of
non self-adjoint relativistic Hamiltonians" II

11:10 - 12:10   Luca Fanelli (Sapienza University of Rome, Italy), **Minicourse**
"Uniform Resolvent Estimates and the point spectra of
non self-adjoint relativistic Hamiltonians" III

13:20 - 14:00   Kazumasa Fujiwara (Tohoku University, Sendai)
"An estimate for commutator of fractional Laplacian with rough metric"

14:05 - 14:45   Hiroyuki Hirayama (Miyazaki University, Miyazaki)
"Well-posedness for a system of quadratic derivative
nonlinear Schrödinger equations with radial initial data"

14:50 - 15:30   Jun-ichi Segata (Kyusyu University, Fukuoka)
                  "Modified scattering for the complex valued nonlinear Klein-Gordon
                    equation"

16:00 - 17:00   Luis Vega (Basque Center for Applied Mathematics, Spain), **Minicourse**
                  "The vortex filament equation, the Talbot effect and non-circular jets" III

17:10 - 18:10   Vladimir Georgiev (University of Pisa, Italy), **Minicourse**
                  "Fractional NLS and semilinear half - wave equations" II

July 26, Friday

10:00 - 11:00   Vladimir Georgiev (University of Pisa, Italy), **Minicourse**
                  "Fractional NLS and semilinear half - wave equations" III

11:10 - 12:10   Vladimir Georgiev (University of Pisa, Italy), **Minicourse**
                  "Fractional NLS and semilinear half - wave equations" IV

13:30 - 14:30   Luca Fanelli (Sapienza University of Rome, Italy), **Minicourse**
                  "Uniform Resolvent Estimates and the point spectra of
                    non self-adjoint relativistic Hamiltonians" IV

15:00 - 16:00   Luis Vega (Basque Center for Applied Mathematics, Spain), **Minicourse**
                  "The vortex filament equation, the Talbot effect and non-circular jets" IV

16:20 - 17:00   Haruya Mizutani (Osaka University, Osaka)
                  "Wave operator on Sobolev space"

17:10 - 17:50   Takahisa Inui (Osaka University, Osaka)
                  "The Strichartz estimates for the damped wave equation
                    and its application to a nonlinear problem"

18:00 -   Reception at Large Conference Room

This workshop is a part of "Special Lecture on Quantum Physics".
このワークショップは量子物理学特別講義「Special Lecture on Quantum Physics」を兼ねています。