

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 25 – July 26, 2022

Venue: Large Conference Room, 1st Floor, 55N Bldg., Waseda University, Nishi-Waseda Campus

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

Mathematical Physics

July 25, Monday

- 10:00 – 11:00 Vladimir Georgiev (University of Pisa, Waseda University), **Minicourse I**
Stability/instability results for NLS with singularity in 2D
- 11:10 – 12:10 Fumio Hiroshima (Kyushu University), **Minicourse I**
Renormalization, ground states, and localization by path measures
- 13:30 – 14:30 Vladimir Georgiev (University of Pisa, Waseda University), **Minicourse II**
Scattering and global dynamics for Chern-Simons-Schrödinger system
- 15:00 – 15:50 Satoshi Masaki (Osaka University)
Global dynamics below first excited solitons for NLS equation with potential
- 16:00 – 16:50 Shuji Machihara (Saitama University)
Rellich inequalities in the framework of equalities

July 26, Tuesday

- 10:00 – 11:00 Vladimir Georgiev (University of Pisa, Waseda University), **Minicourse III**
On Strauss conjecture for wave equation with inverse square potential
- 11:10 – 12:10 Fumio Hiroshima (Kyushu University), **Minicourse II**
Renormalization, ground states, and localization by path measures
- 13:30 – 14:30 Fumio Hiroshima (Kyushu University), **Minicourse III**
Renormalization, ground states, and localization by path measures
- 15:00 – 15:30 Takuya Sato (Tohoku University)
Optimal mass decay of solutions to nonlinear Schrödinger equations with a critical dissipative nonlinearity

15:40 – 16:10 Taiki Takeuchi (Waseda University)

Vanishing viscosity limit of solutions of the Keller-Segel-Navier-Stokes system

16:20 – 16:50 Ryunosuke Kusaba (Waseda University)

Nonexistence of global solutions to Nakao's problem via a test function method

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。

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

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