

**Mathematics and Physics Unit “Multiscale Analysis, Modelling
and Simulation” , Top Global University Project, Waseda
University**

Report on Study Abroad

Name : Kenta Tomioka

Date : July, 2023

1. Destination

Pisa University, Italy.

2. Dates of Stay

From April 11, 2023 to July 2, 2023 (83 days).

Departure from Japan : April 10, 2023.

Arrival to Japan : July 3, 2023.

3. Purpose

To visit Professor Vladimir Simeonov Gueorguiev and to study nonlinear dispersive equations.

4. Host Professor

Professor Vladimir Simeonov Gueorgiev (Pisa University).

5. Research Activity

No official seminar, Self introduction, 19 April, 2023 (Italian time).

The research topic is to analyze nonlinear dispersive equations (or systems). For example, we are interested in the nonlinear Schrödinger equation, the Zakharov system and the Klein-Gordon-Schrödinger system. Especially, we studied the behavior (scattering problems or stability problems or blow up problems) of these solutions. As the results, we got some results of scattering problems for a nonlinear dispersive equation.

6. Other comments

I appreciate Professor Vladimir Simeonov Gueorgiev and everyone whom I met since I could get kind approach and exciting experience. I talked with Professor Vladimir Simeonov Gueorgiev about several topics. Especially, I could learn not only several

knowledge but also the mind as the researcher. I am very happy that I went to Italy. I also appreciate Professor Tohru Ozawa since I could get the great chance to study in Italy. Moreover, I appreciate Ms. Yukari Ishizaki and Waseda University since I could get a lot of help and support.

Dipartimento Di Mathematica

