A3 Workshop on Applied Inverse Problems and Related Topics

Date: November 28 (Tue.) – November 30 (Thu.), 2017
Venue: Lecture Hall, Graduate School of Mathematical Sciences, Komaba Campus, The University of Tokyo

Program

November 28 (Tue.)

10:30-11:15   Registration

11:15-11:20   Opening address
                Tiangang Lei (National Natural Science Foundation of China)

11:20-12:05   Gang Bao (Zhejiang University)
                Progress and challenges in scattering and inverse scattering problems

12:05-14:30   Lunch break

14:30-15:15   Yoko Hoshi (Hamamatsu University School of Medicine)
                Estimation of optical properties of rat and monkey brains from in situ femtosecond time-resolved measurements

15:15-15:45   Group photo & coffee break

15:45-16:30   Hiroshi Fujiwara (Kyoto University)
                Quantitative simulation of light emitting by optical fibers in the radiative transport equation

16:30-17:15   Manabu Machida (Hamamatsu University School of Medicine)
                Coefficient inverse problems for the time-fractional linear Boltzmann equation

17:15-17:45   Yuko Hatano (Tsukuba University)
                Long-term atmospheric contaminations of the Fukushima accident

18:00-19:30   Banquet (common room)

November 29 (Wed.)

10:00-10:45   Johannes Elschner (Berlin)
              Acoustic scattering from corners, edges and conic points

10:45-11:30   Jialin Hong (Chinese Academy of Sciences)
              Stochastic symplectic methods for stochastic Schrödinger equation

11:30-13:30   Lunch break

13:30-14:15   Jin Cheng (Fudan University)
              Some results on unique continuation

14:15-15:00   Won-Kwang Park (Kookmin University)
              Real-time detection of moving anomaly in microwave tomography: analysis and real-data experiment

15:00-15:30   Coffee break

15:30-16:15   Jijun Liu (Southeast University)
              On fluorescence imaging: diffusion equation model and non-uniqueness of the inverse problem

16:15-17:00   Hiromichi Itou (Tokyo University of Science)
              On inverse problems of a crack and a cavity in linearized elasticity

17:00-18:00   Free discussion

November 30 (Thu.)

10:00-10:45 Shuai Lu (Fudan University)

On parameter identification in linear stochastic differential equations by Gaussian statistics

10:45-11:30 Xiang Xu (Zhejiang University)

Inverse random source problem on biharmonic equation

11:30-13:20 Lunch break

13:20-17:00 **Short communications**

13:20-13:40 Zewen Wang (East China University of Technology)

Multivariate numerical derivative by solving an inverse heat source problem

13:40-14:00 Takahito Kashiwabara (The Unviersity of Tokyo)

Finite element method for slip and leak boundary conditions of friction type

14:00-14:20 Wen Zhang (East China University of Technology)

A two-dimensional, two free-interface problem in combustion

14:20-14:40 Hongxiang Lin (The Unviersity of Tokyo)

Towards the discretization aspects on the adjoint approach of photoacoustic tomography

14:40-15:00 Jianhua Zhang (East China University of Technology)

A new iterative method for solving complex symmetric linear systems

15:00-15:20 Coffee break

15:20-15:40 Jun-Yong Eom (Tohoku University)

Reconstruction of the shear modulus of viscoelastic systems in a thin cylinder

15:40-16:00 Zhousheng Ruan (East China University of Technology)

Simultaneous inversion of the fractional order and the space-dependent source term for the time-fractional diffusion equation

16:00-16:20 Suguru Maekawa (Kyoto University)

Coefficient reconstruction in time harmonic viscoelastic equation for MR elastography by multiscale algorithm

16:20-16:40 Yunliang Zhang (East China University of Technology)

Two class of non-Newtonian fluids underground state

16:40-17:00 Hiroshi Takase (The University of Tokyo)

Inverse problem related to the St. Venant equation for one dimensional water flow

17:00-17:10 Closing address

Masahiro Yamamoto (The University of Tokyo)

Facility & Equipments during Workshop

● **Wi-Fi connection**

ONLY eduroam is available. Due to the regulation, we cannot provide other internet connection for participants.

● **Facility for speakers**

A pointer, a standard VGA connector and a common laptop will be provided.
If you will use your own laptop which does not have a VGA connector, please prepare an adaptor by yourself (esp. Mac users).
If you will use the common laptop, please prepare the file in your USB memory.

● **Discussion room**

A seminar room for free discussion will be provided every day.
Nov. 28 (Tue.): Room 052
Nov. 29 (Wed.): Room 470
Nov. 30 (Thu.): Room 052

● **Print, copy and library**

Please ask anyone affiliated to the host institute.