

Research Institute for Mathematical Sciences (RIMS), Kyoto University

Symposium (open)

Analysis of inverse problems through partial differential equations and related topics

Organizer: Kazumi Tanuma (Gunma University)

Date : January 8th, 2020 (Wed) -- January 10th, 2020 (Fri)

Place : Room 420, Research Institute for Mathematical Sciences, Kyoto University

Program

January 8th, 2020 (Wed)

10:00~10:45 Daisuke Kawagoe (Kyoto University)

Spectral analysis on the elastic Neumann-Poincaré operator

11:00~11:45 Hitoshi Yoshikawa (Kyoto University)

A determination of scatterers using topology optimization with time domain BIEM for scalar wave problems

13:30~14:15 Hiroya Ito (The University of Electro-Communications)

On polynomial solutions of the Lamé and Stokes systems

14:25~15:15 Guanghui Hu (Beijing Computational Science Research Center, China)

Corner scattering and data-driven shape identification problems

15:30~16:15 Yikan Liu (Hokkaido University)

Inverse moving source problems for (time-fractional) diffusion(-wave) equations

16:25~16:55 Hiroshi Takase (The University of Tokyo)

Inverse source problem for Klein-Gordon equation in de Sitter space-time

January 9th, 2020 (Thu)

9:20~10:05 Ben Aïcha Ibtissem (Beijing Computational Science Research Center, China)

Stability estimate in recovering a first order coefficient in a non-self-adjoint wave equation from Dirichlet-to-Neumann map

10:20~11:05 Manmohan Vashisth (Beijing Computational Science Research Center, China)

Reconstruction for the coefficients of a quasilinear elliptic partial differential equation

11:20~12:10 Xiang Xu (Zhejiang University, China)

Inversion trace formulas for a Sturm-Liouville operator

12:15~12:30 Xiaohua Jing (Xi'an Jiaotong University, China, The University of Tokyo)

Uniqueness of the potential for one-dimensional time-fractional diffusion problem
(short communication)

14:00~14:50 Cheng Hua (Fudan University, China)

The uniqueness problem of Rayleigh wave in Kelvin viscoelastic half-space and possible
method to solve the problem

15:10~15:55 Hiromichi Itou (Tokyo University of Science)

On unilateral contact problems with friction for an elastic body with cracks

16:10~16:55 Shiro Hirano (Ritsumeikan University)

A nonlinear integro-differential equation of earthquake faulting

18:00~ Banquet

January 10th, 2020 (Fri)

9:30~10:15 Kazuki Niino (Kyoto University)

A fundamental study of a numerical analysis based on the point source method for the
Helmholtz equation in 2D

10:30~11:15 Takahiro Saitoh (Gunma University)

Application of various forward and inverse scattering techniques to non-destructive
testing

11:30~12:15 Takaaki Nara (The University of Tokyo)

Identification of coefficients in time-harmonic Maxwell's equations and its application
to biomagnetic inverse problems

13:50~14:35 Manabu Machida (Hamamatsu University School of Medicine)

A numerical method for inverse transport problems

14:50~15:35 Hiroshi Fujiwara (Kyoto University)

Numerical realizations of X-ray computerized tomography by Cauchy-type boundary
integration

15:50~16:20 Takashi Furuya (Nagoya University)

Direct and inverse scattering problems for the local perturbation of an open periodic waveguide in the half plane

16:30~16:45 Ruixue Gu (Harbin Institute of Technology, China, The University of Tokyo)

Fast subspace optimization method for nonlinear inverse problems in Banach spaces with uniformly convex penalty terms (short communication)

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Please visit the home page of the conference:

http://www.xmath.ous.ac.jp/~ohe/RIMS_Jan2020/index_en.html

The latest program can be downloaded from there.

We have planned a banquet on the evening of January 9th (Thur). Please visit the preceding website and please contact Prof. Fujiwara before January 6th.

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