

RIMS Symposium (open)

# Harmonic Analysis and Nonlinear Partial Differential Equations

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Date: 2022, July 11th (Mon) 13 : 15 – July 13th ( Wed ) 11 : 45  
Venue: Room 420, Research Institute for Mathematical Sciences (RIMS),  
Kyoto University, Kyoto

## Program

### July 11th (Mon)

- 13 : 15 – 14 : 15 Haruya Mizutani (Osaka University)  
*L<sup>p</sup>*-boundedness of wave operators for fourth-order Schrödinger operators in one space dimension
- 14 : 30 – 15 : 30 Gerd Grubb (University of Copenhagen)  
Fourier methods for fractional-order operators I
- 15 : 45 – 16 : 45 Gerd Grubb (University of Copenhagen)  
Fourier methods for fractional-order operators II

### July 12th (Tue)

- 9 : 00 – 10 : 00 Ikkei Shimizu (Osaka University)  
Profile decomposition for the Schrödinger propagator on star graphs and its application to nonlinear problems
- 10 : 15 – 11 : 15 Hitoshi Tanaka (National University Cooperation Tsukuba University of Technology)  
Choquet integrals, Hausdorff content and sparse operators
- 11 : 15 – 13 : 15 Lunch break
- 13 : 15 – 14 : 15 Makiko Sasada (The University of Tokyo)  
Hydrodynamic limit of interacting particle systems and partial differential equations
- 14 : 30 – 15 : 30 Moritz Kassmann (Bielefeld University)  
Energy methods for nonlocal problems and transitions to local problems
- 15 : 45 – 16 : 45 Luca Scarpa (Politecnico di Milano)  
Nonlocal-to-local convergence of Cahn-Hilliard equations: asymptotic analysis and applications

July 13th (Wed)

9 : 30 – 10 : 30

Shinya Kinoshita (Saitama University)  
Boundary Strichartz estimates for orthonormal initial data

10 : 45 – 11 : 45

Nakao Hayashi (Tohoku University)  
Critical exponent of small solutions to the Nonlinear Schroedinger equation with a nonlinear Neumann boundary condition

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