

# The 40th Kyushu Symposium on Partial Differential Equations

**Date :** January 30 – February 1, 2023

**Venue :** Kyushu University, Nishijin Plaza

<http://nishijinplaza.kyushu-u.ac.jp/english/index.php>

## Program

January 30 (Monday)

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|---------------|---|
| 13:40 – 14:30 | Philippe G. LeFloch (Sorbonne Université, Paris)<br>Recent advances on Einstein equations of general relativity                       |
| 14:40 – 15:30 | Yuta Wakasugi (Hiroshima University)<br>Asymptotic expansion of solutions to the wave equation with space-dependent damping           |
| 15:50 – 16:40 | Tatsuya Miura (Tokyo Institute of Technology)<br>On the fine structure of the singular set of distance functions                      |
| 16:50 – 17:40 | Yohei Yamazaki (Kyushu University)<br>Center stable manifold for ground states of nonlinear Schrödinger equations with internal modes |

January 31 (Tuesday)

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|---------------|--|
| 10:00 – 10:50 | Neal Bez (Saitama University)<br>Boundary Strichartz estimates for orthonormal systems                           |
| 11:00 – 11:50 | Ikkei Shimizu (Osaka University)<br>Phase transition threshold and stability of magnetic skyrmions               |
| 14:00 – 14:50 | Julio D. Rossi (Universidad de Buenos Aires)<br>Different notions of convexity                                   |
| 15:00 – 15:50 | Yoshihito Kohsaka (Kobe University)<br>On traveling waves of geometric evolution equations with area constraints |
| 16:10 – 17:00 | Yoshihiro Shibata (Waseda University)<br>On $L^1$ maximal regularity   |

February 1 (Wednesday)

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|---------------|---|
| 10:00 – 10:50 | Tomasz Piasecki (University of Warsaw)<br>Stability of the density patches problem with vacuum for incompressible inhomogeneous viscous flows |
| 11:00 – 11:50 | Tsukasa Iwabuchi (Tohoku University)<br>A localized maximum principle and its application to the critical SQG on bounded domain               |
| 13:40 – 14:30 | Kai Koike (Tokyo Institute of Technology)<br>Time-asymptotic expansion with pointwise remainder estimates for 1D viscous compressible flow    |
| 14:40 – 15:30 | Masashi Aiki (Tokyo University of Science)<br>The Hasimoto Transformation for a Finite Length Vortex Filament and its Application             |
| 15:50 – 16:40 | Atsushi Yoshikawa (Kyushu University)<br>The initial layer and the related asymptotic class of functions                                      |

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