Curriculum Vitae

Name   Kosuke KITA

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Academic Degree

▷ **<u>Bachelor of Engineering</u>**: Department of Applied Physics, Waseda University, March 2017 (Supervisor: Mitsuharu Ôtani)

▷ **<u>Master of Science</u>**: Department of Pure and Applied Physics, Waseda University, March 2019 (Supervisor: Mitsuharu Ôtani)

▷ **<u>Doctor of Science</u>**: Department of Pure and Applied Physics, Waseda University, March 2022

     Chief referee: Tohru Ozawa

     Co-referees: Shigeaki Koike

                        Hideo Kozono

                        Kousuke Kuto

                        Vladimir Simeonov Gueorguiev

Professional Position

▷ April 2020 – March 2022
JSPS Research Fellow: DC2

▷ April 2022 –
Lecturer (Department of Physics, School of Advanced Science and Engineering, Waseda University)

Research Interests

▷ Elliptic and parabolic equations
▷ Qualitative theory
▷ Nonlinear boundary conditions
▷ Nonlinear semigroups
▷ Dissipative wave equations

Publication List

Original papers

[1] (with M. Ôtani; H. Sakamoto) On some parabolic systems arising from a nuclear reactor model with nonlinear boundary conditions, *Adv. Math. Sci. Appl.*, **27**, No.2 (2018), 193-224.

[2] (with M. Ôtani) Bounds for global solutions of a reaction diffusion system with the Robin boundary conditions, *Differ. Equ. Appl.*, **11** (2019), no. 2, 227-242.

[3] (with M. Ôtani) Bounds for global solutions of nonlinear heat equations with nonlinear boundary conditions, to appear in *Libertas Math. (N.S.)*.

[4] (with M. Ôtani) On a comparison theorem for parabolic equations with nonlinear boundary conditions, *Adv. Nonlinear Anal.*, **11** (2022), no. 1, 1165-1181.

[5] (with R. Kusaba) A remark on the blowing up of solutions to Nakao's problem, *J. Math. Anal. Appl.*, **513** (2022), no. 1, Paper No. 126199.

Proceedings (without peer review)

[1] 原子炉モデルに起因するある反応拡散系について, 第 39 回発展方程式若手セミナー報告集, 125-134, 2017 (in Japanese).

[2] On some parabolic systems arising from a nuclear reactor model, *RIMS Kôkyûroku*, Kyoto University, **2090**, 42-59, 2018.

[3] The uniform boundedness of global solutions for a reaction diffusion system, 第 40 回発展方程式若手セミナー報告集, 121-128, 2018 (in Japanese).

[4] 非線形境界条件に支配される放物型方程式に対する比較定理とその応用について, *Hokkaido University technical report series in Mathematics*, **176**, 319-324, 2019 (in Japanese).

[5] 非線形境界条件を伴う非線形熱方程式の大域解の有界性について, 第 41 回発展方程式若手セミナー報告集, 259-264, 2020 (in Japanese).

Talk List

International conference

[1] Comparison theorem for parabolic equations governed by nonlinear boundary conditions and its applications, *International Workshop on Multiphase Flows: Analysis, Modelling and Numerics*, via Zoom, Dec. 2020.

[2] On some parabolic systems arising from a nuclear reactor model with nonlinear boundary conditions, *12th AIMS Conference Series on Dynamical Systems and Differential Equations*, Taipei, July 2018.

[3] On some parabolic systems arising from a nuclear reactor model, *RIMS Workshop Theory of Evolution Equation and Mathematical Analysis of Nonlinear Phenomena*, Kyoto, Oct. 2017.

National conference (in Japanese)

[1] 非線形境界条件を伴う非線形熱方程式に対する臨界現象について, One Day Workshop 抽象発展方程式のこれまでとこれから -動的境界条件への応用を見据えて-, Kyoto, Jan. 2021.

(other 24 talks)

Award

▷ March 2017

Koizumi Prize (2016 master thesis award of Department of Pure and Applied Physics)