

非圧縮性粘性流体の数理解析
Mathematical analysis of viscous incompressible fluid
RIMS 共同研究（公開型）報告集

2022 年 11 月 30 日～12 月 2 日
研究代表者 菱田 俊明 (Toshiaki Hishida)
副代表者 柴田 良弘 (Yoshihiro Shibata)

目次

1. SPECTRAL ANALYSIS APPROACH TO THE MAXIMAL REGULARITY FOR THE STOKES EQUATIONS AND FREE BOUNDARY PROBLEM FOR THE NAVIER-STOKES EQUATIONS
柴田 良弘 (Yoshihiro Shibata) 早稲田大学 (Waseda U.)
2. Forced rapidly dissipative Navier-Stokes flows
岡部 考宏 (Takahiro Okabe) 大阪大学 (Osaka U.)
3. On unique solvability of the time-periodic problem for the Navier-Stokes equation
中塚 智之 (Tomoyuki Nakatsuka) 松山大学 (Matsuyama U.)
4. A Note on the Asymptotic Behavior in Time of the Kinetic Energy in a Liquid-Solid Interaction Problem
Giovanni P. Galdi U. Pittsburgh
5. \mathcal{R} -boundedness for an integral operator in the half space and its application to the Stokes problems
梶原 直人 (Naoto Kajiwara) 岐阜大学 (Gifu U.)
6. Anisotropically weighted L^q - L^r estimates of the Oseen semigroup in exterior domains, with applications to the Navier-Stokes flow past a rigid body
高橋 知希 (Tomoki Takahashi) 名古屋大学 (Nagoya U.)
7. Remarks on two new estimates for the plane stationary Navier-Stokes equations
Mikhail Korobkov Fudan U. / Sobolev Institute of Mathematics
Xiao Ren Fudan U.

8. Problems in microswimmer hydrodynamics
石本 健太 (Kenta Ishimoto) 京都大学 (Kyoto U.)
9. Stability of Relaxed Navier-Stokes Equations
Reinhard Racke U. Konstanz
10. RECENT PROGRESS IN THE STABILITY THEORY FOR THE SYMMETRIC
HYPERBOLIC SYSTEM WITH GENERAL RELAXATION
上田 好寛 (Yoshihiro Ueda) 神戸大学 (Kobe U.)
11. Global well-posedness for a Q-tensor model of nematic liquid crystals
村田 美帆 (Miho Murata) 静岡大学 (Shizuoka U.) / 東北大学 (Tohoku U.)
柴田 良弘 (Yoshihiro Shibata) 早稲田大学 (Waseda U.)