Universidade Federal de Santa Catarina
Centro de Ciências Físicas e Matemáticas
Pós-Graduação em Matemática

Seminars on Differential Equations (2018.2)

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ASYMPTOTIC DYNAMICS FOR A NON-AUTONOMOUS NAVIER-STOKES-VOIGT EQUATION

Abstract

This article focuses on the optimal regularity and long-time dynamics of solutions of a Navier- Stoke-Voigt equation with non-autonomous body forces in non-smooth domains. Optimal regularity is considered, in that the regularity of $H^1 \cap H^2$ is impossibly achievable. Given the initial data in certain spaces, it can be shown that the problem generates a well-defined evolutionary process. Then we prove the existence of a uniform attractor consisting of complete trajectories.

References.

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3. WU, D. AND ZHONG, C. - The attractors for nonhomogeneous nonautonomous Navier-Stokes equations. *J. Math. Anal. Appl.*, **321**, 426-444, 2006.
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Thursay - September 20th, 2018 **14:00 - 15:00**

Room 202 - Maths Department

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