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Global regularity of solutions of 2D Boussinesq equations with fractional diffusion. (English)

Zbl 1177.76024

Nonlinear Anal., Theory Methods Appl., Ser. A, Theory Methods 72, No. 2, 677-681 (2010).

Summary: The goal of this work is to study the Boussinesq equations for an incompressible fluid in $\mathbb{R}^2$, with diffusion modeled by fractional Laplacian. The existence, the uniqueness and the regularity of solution has been proved.

MSC:

76B03	Existence, uniqueness, and regularity theory for incompressible inviscid fluids	Cited in **31** Documents
76D03	Existence, uniqueness, and regularity theory for incompressible viscous fluids	
76D05	Navier-Stokes equations for incompressible viscous fluids	

Keywords:

fractional diffusion; regularity; global existence; Boussinesq equations

Full Text: DOI

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