

Uniform global well-posedness of the Navier-Stokes-Coriolis system in a new critical space

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Abstract

In this work we prove global well-posedness for the Navier-Stokes-Coriolis system (NSC) in Fourier-Besov-Morrey space $\mathcal{FN}_{1,\mu,\infty}^{\mu-1}$ with $0 < \mu < 3$. The smallness condition on the initial data is uniform with respect to the angular velocity ω . Our result provides a new class for the uniform global solvability of (NSC) and covers some previous ones.