

Pseudo monotone operators and the unsteady rotational Smagorinsky model

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Talk Abstract

We show that the rotational Smagorinsky model for turbulent flows can be put in the setting of Bochner pseudo-monotone evolution equations. This allows to prove existence of weak solutions identifying a proper weighted spaces and checking some easily verifiable assumptions, at fixed time. We also will briefly discuss the critical role of the exponents present in the model (power of the distance function and power of the curl).

Keywords: turbulence, degenerate parabolic equations.

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References

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