

# STABILITY OF THE EKMAN SPIRAL IN SPACES OF INFINITE ENERGY

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ABSTRACT. For rotating layers as the Ekman boundary layer a well-established mathematical model is given by the Navier-Stokes equations with Coriolis force, considered in a half-space or a layer. The famous so called Ekman spiral, describing the motion inside the boundary layer, is an exact stationary solution of this system. A crucial point is that this special solution has infinite energy. Thus, it appears to be natural to investigate well-posedness and stability of the corresponding model in non-standard classes containing functions with infinite energy. In my talk I therefore intend to present an approach to the Ekman boundary layer problem in spaces of vector-valued Radon measures, which was developed in a joint project with Yoshikazu Giga (Tokyo).