

1027-76-81

Rafal Komendarczyk* (rako@math.upenn.edu), Department of Mathematics, 209 S. 33rd St., Philadelphia, PA 19104. *K-contact structures and energy minimization.*

In the realm of closed 3-manifolds the classical examples of steady Euler fluid flows minimizing the L^2 -energy are ABC-fields on the flat 3-torus and the Hopf fields on the round 3-sphere. In this talk I will provide a condition for the curl eigenfield defined by a K-contact structure to be a minimizer. This result has been reported in the joint paper with Robert Ghrist in *Nonlinearity*. (Received February 15, 2007)