

Renormalisation of active scalar equations

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Abstract

In analogy to the famous (now resolved) conjecture of Onsager for the Euler equations, one may ask what regularity a weak solution of an active scalar equation needs to have in order to guarantee the conservation of L^p norms. While the case $p = 2$ can be handled by the classical commutator method of Constantin-E-Titi, other exponents require novel ideas. Joint work with I. Akramov.

Keywords: Active scalar equations, conserved quantities, renormalisation.