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Università di Roma Tor Vergata
Dipartimento di Fisica

Seminar

Monday, 31 Marzo 2014 - h. 14:30

Sala Grassano (Dipartimento di Fisica)

Dr. Gregory Bewley

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"How quickly does turbulence die out ?"

Abstract

The turbulent fluctuations of a fluid die out once stirring has stopped. But how quickly? Surprisingly we do not precisely know the answer. We address specifically the Reynolds number dependence of the decay of fully developed turbulence. In a wind-tunnel experiment that reached higher Reynolds numbers than ever before and covered more than two decades in the Reynolds number, we measured the decay of turbulent kinetic energy with unprecedented precision. We observed that the decay was Reynolds number independent. This finding contradicts some models, and supports others.

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(P.I. Prof. Luca Biferale)