Applied Mathematics Seminar
INSCC 110, 3:30pm Friday
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The Ubiquity of Fluid Instability

by

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Abstract

We argue that in some appropriate sense almost all steady flows of an ideal fluid are unstable. However there are different kinds of instability, some of which could be called "slow" as opposed to "fast" instabilities associated with isolated unstable eigenvalues. Examples are given to stress the importance of the norm in which the growth of a disturbance is measured. The discussion includes joint work with A.Shnirelman, W.Strauss, M.Vishik and V.Yudovich.