

Einladung

Würzburger Mathematisches Kolloquium

Julius-Maximilians-Universität Würzburg • Institut für Mathematik

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Friedrich-Alexander-Universität Erlangen-Nürnberg

Analysis of Turbulent Flows: Deterministic and Probabilistic Descriptions

Dienstag, 11. Juli 2023 • 14:15 Uhr

Seminarraum SE41 • Forschungsbau (Emil-Fischer-Straße 41, 97074 Würzburg)

Der Vortrag wird auch Zoom-Meeting übertragen: go.uni-wue.de/ifmcolloquium-zoom

Abstract. Fluids can behave in a highly irregular, turbulent way. It has long been realised that, therefore, some weak notion of solution is required when studying the fundamental partial differential equations of fluid dynamics, such as the Navier-Stokes or Euler equations. The standard concept of weak solution is still a deterministic one, as it gives exact values for the state variables (like velocity or density) for almost every point in time and space. However, observations and mathematical theory alike suggest that this deterministic viewpoint has certain limitations. Thus, there has been an increased recent interest in the mathematical fluids community in probabilistic concepts of solution.

We aim here to give an overview of probabilistic formulations of fluid equations, which can roughly be split into measure-valued and statistical frameworks.



<https://www.mathematik.uni-wuerzburg.de/de/aktuelles/kolloquium>

Alle sind herzlich eingeladen.

Die Dozentinnen und Dozenten der Mathematik

