Department Mathematik
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MATHEMATIK

PROF. DR. EBERHARD BÄNSCH & PROF. DR. EMIL WIEDEMANN   WS 2023/24
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Seminar Announcement: Topics in Navier-Stokes Equations

This seminar is aimed at advanced students (including PhD students) who have already acquired some familiarity with the mathematical study of incompressible flows, e. g. by taking the courses Navier-Stokes Equations and/or Numerics of Incompressible Flows in the summer term 2023. We will discuss selected topics of recent or current research in the theoretical and numerical analysis of the Navier-Stokes equations (and possibly related models). The following is an incomplete list of proposed topics, which can be supplemented or replaced by the participants' own suggestions:

- Finite-element approximation (Heywood-Rannacher)

- Partial regularity (Caffarelli-Kohn-Nirenberg)

- Viscosity limits (Kato, Constantin)

- Anomalous dissipation (Jeong-Yoneda, Li-Yu-Zhu)

- Non-uniqueness of Leray solutions (Jia-Šverák, Albritton-Brué-Colombo)

- Statistical solutions (Foias)

A preliminary meeting will take place at the beginning of the winter term 23/24. Please register on StudOn by **September 30**. Don't hesitate to direct any questions by e-mail to Prof. Bänsch or Prof. Wiedemann.