der Bundeswehr

Universität München

Vortragsankündigung

Am **Mittwoch, den 18.01.2017,** hält **um 17:00 Uhr**

Alexander Linke
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einen Gastvortrag über das Thema

Towards pressure-robust mixed methods for the incompressible Navier-Stokes equations

Der Vortrag findet im **Raum 1401** in **Gebäude 33** statt.

Vortragszusammenfassung

For more than thirty years it was thought that the efficient construction of pressure-robust mixed methods for the incompressible Navier-Stokes equations, whose velocity error is pressure-independent, was practically impossible. However, a novel, quite universal construction approach shows that it is indeed rather easy to construct pressure-robust mixed methods. The approach repairs a certain (L2-)orthogonality between gradient fields and discretely divergence-free test functions, and works for families of arbitrary-order mixed finite element methods, arbitrary-order discontinuous Galerkin methods, and finite volume methods. Novel benchmarks for the incompressible Navier-Stokes equations show that the approach promises significant speedups in computational practice, whenever the continuous pressure is complicated.

Alle Interessierten sind dazu herzlich eingeladen.