Towards dissipative solutions of turbulent incompressible flows

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$H(\mathrm{div})$-conforming DG methods can be used to generate point-wise divergence-free velocities for incompressible flow problems. Such methods can be shown to be pressure-robust and convection-semi-robust. It is a challenge to show that they generate dissipative solutions for turbulent flows in the Euler limit case. We discuss some difficulties of such approach.

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