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**Camillo De Lellis\***, 1 Einstein Drive, Princeton, NJ 08540. *Locally dissipative solutions of the Euler equations.*

The Onsager conjecture, recently solved by Phil Isett, states that, below a certain threshold regularity, Hölder continuous solutions of the Euler equations might dissipate the kinetic energy. The original work of Onsager was motivated by the phenomenon of anomalous dissipation and a rigorous mathematical justification of the latter should show that the energy dissipation in the Navier-Stokes equations is, in a suitable statistical sense, independent of the viscosity. In particular it is much more general to look for solutions of the Euler equations which, besides dissipating the *total* kinetic energy, they also satisfy a suitable form of local energy inequality. Such solutions were first shown to exist by Laszlo Szekelyhidi Jr. and myself. In this talk I will review the methods used so far to approach their existence and the most recent results by Isett and by Hyunju Kwon and myself. (Received February 12, 2021)