1142-35-32 **Theodore D. Drivas*** (tdrivas@math.princeton.edu) and **Huy Q. Nguyen**. *Remarks on the emergence of weak solutions and anomalous dissipation on domains with boundaries.*

First, we prove that if the local second-order structure function exponents in the inertial range remain positive uniformly in viscosity, then any spacetime L^2 weak limit of Leray–Hopf weak solutions of the Navier-Stokes equations on any bounded domain Ω is a weak solution of the Euler equations. This holds for both no-slip and Navier-friction conditions with viscosity-dependent slip length. Next, we discuss an extension of Onsager's conjecture for these weak solutions. Specifically, we give a localized regularity condition for energy conservation of weak solutions of the Euler equations assuming (local) Besov regularity of the velocity with exponent $\sigma > 1/3$ and, on an arbitrary thin layer around the boundary, boundedness of velocity, pressure and continuity of the wall-normal velocity. We also prove that the global viscous dissipation vanishes in the inviscid limit for Leray-Hopf solutions of the Navier-Stokes equations under the similar assumptions, but holding uniformly in a vanishingly thin viscous boundary layer. (Received August 16, 2018)