1163-76-1085 **Wai-Tong Fan**, **Michael Jolly*** (`msjolly@indiana.edu`) and **Ali Pakzad**. *Three-dimensional shear driven turbulence with noise at the boundary.*

We study the effect of noise in the movement of a boundary wall in three-dimensional shear flow on the energy dissipation rate. Upper bounds on the expected value of the dissipation rate and on its variance are found. The expected value estimate recovers the bound by Doering-Constantin [Phys. Rev. Lett. 69, 1992] for the deterministic case. The movement of the boundary is given by an Ornstein–Uhlenbeck process (Received September 15, 2020)