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**Effects of Turbulence on the Circumnuclear Disk** CUC DINH, JESUS SALAS, MARK MORRIS , SMADAR NAOZ, University of California, Los Angeles — A Circumnuclear Disk (CND) of molecular gas occupies the central few parsecs of the Galactic Center. It is likely subject to turbulent disruptions from violent events in its surrounding environment, but the effect of such perturbations has not yet been investigated in detail. Here we perform N-body/smoothed particle hydrodynamic (SPH) simulations with an adapted general turbulence driving method to investigate the CND's structural evolution, in particular its reaction to varied scales of turbulence. We find that because of shear flow in the disk, transient arcs of gas (streams) naturally arise when turbulence is driven on large scales (up to about 4 pc), as might occur when a supernova blast wave encounters the CND. Because energetic events arise naturally and often in the central parsecs of our Galaxy, this result suggests that the transient structures that characterize the CND do not imply that the CND itself is a transient structure. We also note that features similar to the clumps detailed in literature emerge when we account for the actual orientation of the disk as well as the resolution of observations. As such, clumps could be an artifact from observational limitations

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