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Lagrangian evolution of deformation of finite-size bubbles in turbulent multiphase flow[1] ASHIK ULLAH MOHAMMAD MASUK, ASHWANTH SALIBINDLA, RUI NI, Pennsylvania State Univ — Finite-size bubbles tend to deform in a strong turbulent environment because of the complex interfacial momentum transfer between them. We have utilized the new V-ONSET turbulence multiphase flow facility to track the deformation and the couplings between two phases in a 3D Lagrangian framework. This rich dataset allows us to understand the roles played by the dynamic pressure and viscous stress, as well as different forces that contribute to the interfacial momentum transfer.

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