1145-76-2133 Francesca Bernardi^{*} (bernardi@math.fsu.edu), Roberto Camassa, Gabrielle M Hobson and Richard M McLaughlin. Diffusion of Passive Tracers Advected by Laminar Shear Flow in Triangular Capillary Pipes.

We investigate the dispersion of a passive tracer in laminar shear flow through triangular capillary pipes. We show through simulation and experiments how the longitudinal asymmetry of the tracer distribution changes in time. We observe a change in the longitudinal concentration profile from back-loaded to front-loaded, corresponding to a sign-change in the (cross-sectionally averaged) skewness. Future directions will be discussed. (Received September 24, 2018)