

Abstract Submitted  
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**Tracking rotation and translation simultaneously in confined liquids** SUBHALAKSHMI KUMAR, SUNGCHUL BAE, STEVE GRANICK, University of Illinois, Urbana Champaign — At the same spatially-resolved spots when fluid is confined to molecularly-thin spacings between atomically-smooth mica crystals, we track simultaneously, using fluorescence correlation spectroscopy and time correlated single photon counting, the translational and rotational diffusion of small dyes suspended in octamethylcyclotetrasiloxane (OMCTS). The spatially-resolved quantification of both dynamical quantities gives insight, as it does in bulk glasses, into the origins of dynamical heterogeneity in confined fluids.

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