

Abstract Submitted
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Stability of chiral colloidal droplets¹ LEROY JIA, Flatiron Institute, EPHRAIM BILILIGN, University of Chicago, MICHAEL SHELLEY, Flatiron Institute & NYU, WILLIAM IRVINE, University of Chicago — We report experiments on a two-dimensional cohesive chiral fluid consisting of millions of spinning colloidal magnets suspended in water. Droplets made of this fluid are observed to swirl around and collapse into a single central superdroplet in a process reminiscent of the accretion of matter during the formation of a black hole. We put forth a minimal but complete hydrodynamic description of this active chiral fluid and use it to analyze the stability of the droplet states.

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