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Stability of electrically charged toroidal droplets in a viscous liquid. ALEXANDROS FRAGKOPOULOS, EKAPOP PAIRAM, ALBERTO FERNANDEZ-NIEVES, Georgia Institute of Technology — Droplets and bubbles are spherical due to surface tension. As a result, making non spherical droplets and understanding their evolution is a challenge. Nevertheless, we were able to develop a method to generate toroidal droplets in a viscous liquid and study their stability. Recently, we have extended this method to generate charged toroidal droplets suspended in an electrically insulating and highly viscous liquid, and have studied the evolution of these droplets subject to constant charge or constant voltage constraints. In this talk I will be presenting the initial results on the stability of charged toroidal droplets.

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