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PIV-Analysis of collapsing toroidal droplets¹ EKAPOP PAIRAM, ERIC BERGER, ALBERTO FERNANDEZ-NIEVES, Georgia Institute of Technology, GEORGIA TECH TEAM — Toroidal droplets are unstable and always undergo a transformation into spherical droplets driven by surface tension. They either break ala Rayleigh-Plateau if the torus is thin or grow fatter to become a single spherical droplet if the torus is fat. We analyze the velocity field inside and outside the toroidal droplet as it transforms into spherical droplets using the particle image velocimetry (PIV) method and compare with recent theoretical calculations for this process.

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