

DY 57: Talk Alberto Fernandez-Nieves

Time: Friday 9:30–10:00

Location: H3

Invited Talk

DY 57.1 Fri 9:30 H3

Toroidal droplets, active nematics and topological defects —

•ALBERTO FERNANDEZ-NIEVES — School of Physics, Georgia Tech (USA) — Department of Condensed Matter Physics, University of Barcelona (Spain) — ICREA - Institució Catalana de Recerca i Estudis Avançats, Barcelona (Spain)

In this talk, I will briefly discuss our recent work with toroidal droplets:

How to make them, how they evolve, and how to stabilize them. I will then discuss how active nematics organize on a torus and show that despite the activity and inherent out-of-equilibrium nature of our experimental system, we see traces of the ground-state expectations –curvature induced defect unbinding– for passive nematics. However, activity augments the behavior leading to completely unexpected positive and negative defect distributions and a very rich overall dynamic behavior.