Title: An introduction to liquid crystals with anisotropic elasticity

Abstract: In this expository talk we will discuss the basics of liquid crystal physics, including how to understand the Q-tensor -- the relevant order parameter, how to construct an expression for free energy, and how to extend the equilibrium picture to deal with non-equilibrium configurations. Additionally, we will discuss why the Landau-de Gennes model is insufficient for describing systems with anisotropic elasticity and describe the alternative Maier-Saupe theory.