Instabilities in Polar Magnetic Suspensions AMIR NOURHANI, Univ of Akron, DAVID SAINTILLAN, University of California, San Diego — The stability of an active suspension of polar motile micromagnets is analyzed theoretically. We formulate the collective dynamics using a kinetic continuum model and Fokker-Planck formalism. Using a perturbation analysis, we obtain governing equations to leading order in polar length and study the stability of the suspension and transition from disordered to ordered state using linear stability analysis.