1127-35-139 **Lidia Mrad** (`lmrad@math.arizona.edu`) and **Daniel Phillips*** (`phillips@purdue.edu`).
Dynamic Analysis of Chevron Structures in Liquid Crystal Cells.

If a surface stabilized ferroelectric liquid crystal cell is cooled from the smectic-A to the smectic-C phase its layers thin causing V-shaped (chevron like) defects to form. These create an energy barrier that can prevent switching between equilibrium patterns. We examine a gradient flow for a mesoscopic Chen-Lubensky energy $\mathcal{F}(\psi, \mathbf{n})$ that allows the order parameter to vanish so that the energy barrier does not diverge if the layer thickness becomes small. (Received January 31, 2017)