

NONLINEAR STABILITY OF THE SOURCE DEFECTS IN COMPLEX GINZBURG-LANDAU EQUATIONS

TOAN NGUYEN, PENN STATE

Source defects are solutions that are time-periodic in an appropriate moving frame and spatially asymptotic to spatially periodic travelling waves whose group velocities point away from the core of the defects. Due to the latter property, localized perturbations may lead to a highly non-localized response even on the linear level. Necessarily, a rather detailed dynamics of the linearized solution is thoroughly investigated. In this talk, I will present a stability analysis to analyze such a profile in context of complex Ginzburg-Landau equations. This is a joint work with M. Beck, B. Sandstede, and K. Zumbrun.