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Kelly McQuighan* (kmcquigh@bu.edu), 111 Cummington Mall, Boston, MA 02215, and Bjorn
Sandstede (bjorn_sandstede@brown.edu), 182 George St, Providence, RI 02912. Oscillons Near
Hopf Bifurcations of Planar Reaction Diffusion Equations. Preliminary report.

Oscillons are planar, spatially localized, temporally oscillating, radially symmetric structures often arising near forced Hopf bifurcations. Using spatial dynamics, we show that the dynamics on the center manifold of a periodically forced reaction diffusion equation (fRD) near a Hopf bifurcation can be captured by the forced complex Ginzburg—Landau equation (fCGL). Thus, oscillon solutions to the fRD can be thought of as a foliation over localized solutions to the fCGL. (Received January 11, 2015)