1108-39-191Taylor Anderson, Gregory Faye and Arnd Scheel* (scheel@umn.edu), School of
Mathematics, 206 Church St SE, Minneapolis, MN 55455, and David Stauffer. Pinning and
unpinning in nonlocal systems.

We investigate pinning regions and unpinning asymptotics in nonlocal equations. We show that phenomena are related to but different from pinning in discrete and inhomogeneous media. We establish unpinning asymptotics using geometric singular perturbation theory in several examples. We also present numerical evidence for the dependence of unpinning asymptotics on regularity of the nonlocal convolution kernel. (Received January 12, 2015)