1110-35-258 **John K Hunter*** (jkhunter@ucdavis.edu), Department of Mathematics, University of California, 1 Shields Avenue, Davis, CA 95616. *Nonlinear, nondispersive surface waves.*

An asymptotic analysis of weakly nonlinear, nondispersive waves on boundaries and interfaces leads to spatially nonlocal equations that describe the nonlinear mixing of the spectral components of the wave. Solutions of these equations typically form singularities which correspond to a loss of smoothness on the boundary or an overturning of the interface. We will give examples of such surface waves in MHD, incompressible fluids, and electromagnetism. (Received February 23, 2015)