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**Nathan Glatt-Holtz, Juraj Földes, Susan Friedlander, Geordie Richards\***  
(geordie.richards@usu.edu) and **Jared Whitehead**. *Singular parameter limits for stochastic PDEs from geophysics.*

We will discuss a technique for proving the weak convergence of invariant measures with respect to singular parameter limits for systems of stochastic PDEs with degenerate forcing. The crucial ingredients are a contraction property of the limiting dynamics relative to a Wasserstein metric, and the convergence of solutions in the singular parameter limit on finite time scales. Two applications from geophysics, with distinct challenges, will be highlighted: the infinite Prandtl number limit for stochastic Boussinesq equations, and the vanishing Rossby and magnetic Reynolds number limit for stochastic magnetohydrodynamics (MHD) equations. This talk is based on joint works with Juraj Földes, Susan Friedlander, Nathan Glatt-Holtz and Jared Whitehead. (Received March 21, 2017)