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Juraj Földes, Susan Friedlander, Nathan Glatt-Holtz, Geordie Richards*
(geordie.richards@usu.edu) and **Jared Whitehead**. *Invariant measures and singular parameter limits for stochastic PDEs from fluid mechanics.*

We will discuss a technique for proving the weak convergence of invariant measures with respect to singular parameter limits for systems of stochastic PDEs from fluid mechanics. 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 physically motivated applications will be highlighted: the infinite Prandtl number limit for a stochastic Boussinesq system, and the vanishing Rossby and Magnetic Reynolds number limit for stochastic MHD. This talk is based on joint works with Juraj Földes, Susan Friedlander, Nathan Glatt-Holtz and Jared Whitehead. (Received February 28, 2017)