

1116-35-880

**Samantha Xu\*** ([samxu@illinois.edu](mailto:samxu@illinois.edu)), Department of Mathematics, 1409 W. Green St, 273  
Altgeld Hall, Urbana, IL 61801. *Applications of Random Fourier Series to Non-linear Dynamics.*

We discuss one of the ways that random Fourier series sheds light on dynamical systems. We focus on the infinite dimensional Hamiltonian systems that arise from dispersive PDEs and analyze their invariant Gibbs measures. We introduce the seminal works of Bourgain as well as current results. (Received September 14, 2015)