

## Anomalous diffusion in random dynamical systems

Deterministic chaotic maps have long been used to study diffusion. Under coarse graining these spatially-extended maps are well modeled by continuous time random walks, and anomalous diffusion and weak ergodicity breaking are observed. The power law exponents for the mean square displacement and waiting time distribution partially match those predicted by continuous time random walks. This project will investigate anomalous sub/super diffusion in the climbing sine map in the presence of noise.