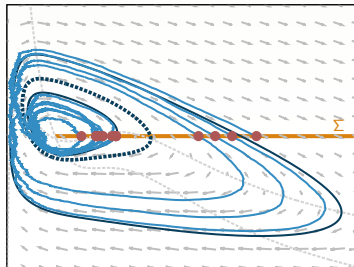
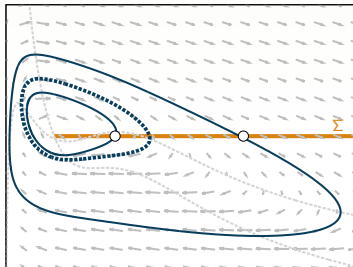


Spectral theory for random Poincaré maps

Manon Baudel with Nils Berglund



$$dz_t = f(z_t) dt + \sigma g(z_t) dW_t$$

- System with stable periodic orbits, Poincaré section Σ
- Noise \Rightarrow transitions, random Poincaré map i.e. Markov chain X_0, X_1, \dots

Quantify transitions?

Spectral properties of the non-reversible kernel

$$K(x, A) = \mathbb{P}\{X_{n+1} \in A | X_n = x\}$$