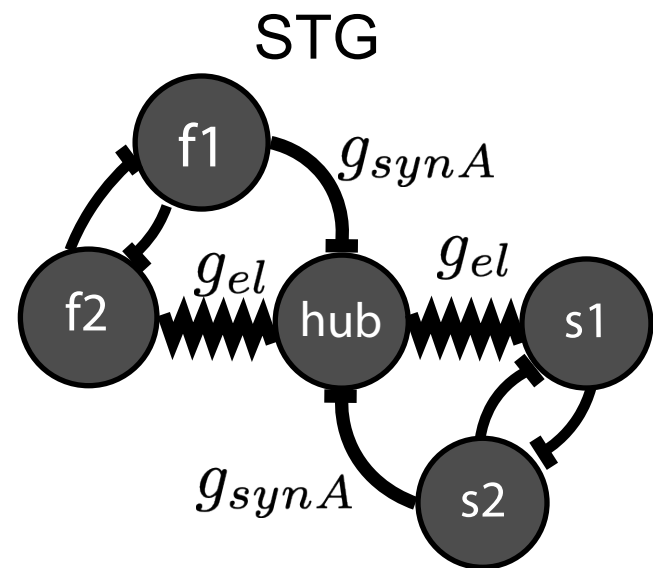
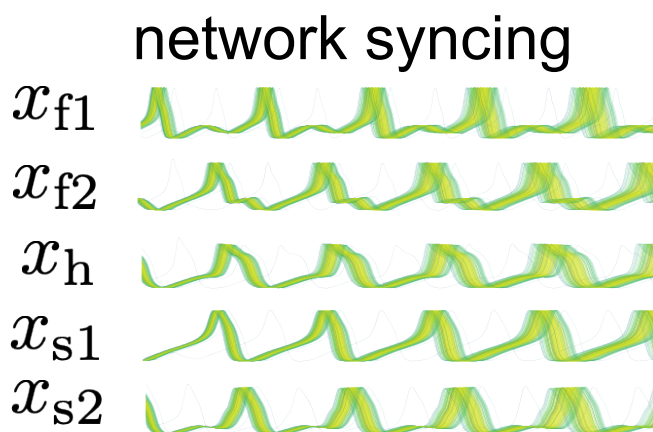
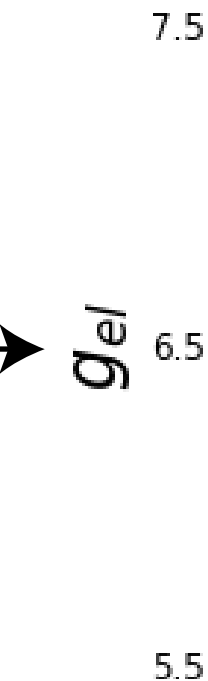


A

biological
modelemergent
propertyEmergent property
inference (EPI) g_{el} Hessian
eigenvectors

C

Emergent property inference (EPI)
training objective

$$q_{\theta}^* = \arg \max_{q_{\theta} \in Q} H(q_{\theta})$$

$$\text{s.t. } \underbrace{E_{z \sim q_{\theta}}}_{\text{model parameter samples}} \left[\underbrace{E_{x \sim p(x|z)}_{\text{model simulations}} [T(x)] \right] = \underbrace{\mu}_{\text{emergent property constraints}}$$

model parameter
samplesmodel
simulationsemergent property
statisticsemergent property
constraints

D

Deep probability distribution

