

Hidden
states

$$\dot{\boldsymbol{\psi}} = \mathbf{f}(\boldsymbol{\psi}, \mathbf{a}) + \boldsymbol{\omega}$$

Sensation

$$\mathbf{s} = \mathbf{g}(\boldsymbol{\psi}, \mathbf{a}) + \boldsymbol{\omega}$$

Sensory delays

$$\tilde{\boldsymbol{\mu}} = \arg \min_{\tilde{\boldsymbol{\mu}}} F(\tilde{\mathbf{s}}, \tilde{\boldsymbol{\mu}})$$

Internal
states

Motor delays

$$\mathbf{a} = \arg \min_a F(\tilde{\mathbf{s}}, \tilde{\boldsymbol{\mu}})$$

Action

environment

agent

Separated by a Markov blanket

