$T(x) \cdot \frac{\partial}{\partial \theta} f(x,\theta) dx = M\left(T(\xi) \cdot \frac{\partial}{\partial \theta} \ln L(\xi,\theta)\right)$  $T(x) \cdot \left(\frac{\partial}{\partial \theta} \ln L(x,\theta)\right) \cdot f(x,\theta) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)\right) dx = \int_{\mathbf{R}_{\theta}} T(x) \cdot \left(\frac{\partial}{\partial \theta} \int_{\mathbf{R}_{\theta}} f(x,\theta)$ 

Computational Neuroscience Initiative Basel presents:



## Mark Goldman

UC Davis

Seminar 17:00 - 18:15:

## Integrators in short- and long-term memory

Workshop 18:30 - 20:00:

Linear network theory, with applications to memory networks

## Tuesday, June 7<sup>th</sup> 2022

## online on Zoom:

https://fmi.zoom.us/j/92017293294?pwd=MkJjVERONIhyWDIvdU11YWsxbjVoQT09 (seminar) https://fmi.zoom.us/j/92308267277?pwd=cEVMSXI5cExnMjUwWFFvLzQ0TDVtQT09 (workshop)



In his research, Mark uses computational models to bridge the gap between the activity of single neurons and functional output of neurobiological networks. His models have addressed a variety of network functions, such as persistent neuronal activity in working memory networks, cerebellar control of oculomotor responses, or the role of oscillations in short-term memory storage.

Mark is a professor at the UC Davis Center for Neuroscience, where he holds the Joel Keizer Chair in Theoretical and Computational Biology.





Institute of Molecular and Clinical Ophthalmology Basel

