UNIVERSITY OF RHODE ISLAND — APPLIED OPTICS & PHOTONICS

UNIVERSITY OF RHODE ISLAND — ASTRONOMY & ASTROPHYSICS

UNIVERSITY OF RHODE ISLAND — BIO/MEDICAL PHYSICS

UNIVERSITY OF RHODE ISLAND — CONDENSED MATTER PHYSICS
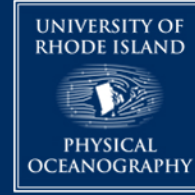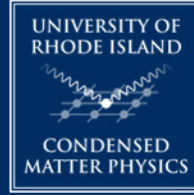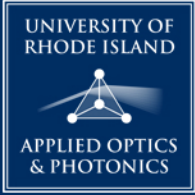
UNIVERSITY OF RHODE ISLAND — PHYSICAL OCEANOGRAPHY

UNIVERSITY OF RHODE ISLAND — QUANTUM INFORMATION

You are invited to join us for a talk as part of our semester colloquium series

Presenter: Dr. Michael Pürrer

Date & Time: Friday November 1, 2024
4:00 - 4:50 PM

Location: East Hall Room 112

Title: Machine Learning With Artificial Neural Networks

Abstract:
The Nobel Prize in Physics 2024 was awarded to John J. Hopfield and Geoffrey E. Hinton for foundational contributions enabling artificial neural networks in machine learning. I will give a high level summary of Hopfield networks which model associative memory, as well as Boltzmann machines, a stochastic extension of Hopfield networks, and their connections to statistical physics. Lastly, I will highlight how we use deep learning techniques in the physics department for rapid and reliable Bayesian inference in gravitational wave astronomy.

SCAN THE QR CODE TO LEARN MORE!

CONTACT US:
DR. ROB COYNE
ROBCOYNE@URI.EDU