Other

A parameter domain-decomposition for reduced basis, parameter estimation in near real time?

Manuel Tiglio

CONICET

Digital Media Center Theatre
March 21, 2023 - 03:30 pm

Abstract:
I will describe a new autonomous approach that extends the traditional reduced basis approach, with the goal of both optimizing numerical relativity surrogates, prompt searches, and fast acceleration (near real time) of parameter estimation of gravitational wave signals. The savings in computing and fast analyses are in the orders of magnitude. Based on preprint
https://arxiv.org/abs/2212.08554 (to appear in Classical and Quantum Gravity) and an upcoming new paper with applications to the LIGO Analysis Library.

Speaker's Bio:

Dr. Tiglio received his Ph. D. in Physics from the Universidad Nacional de Cordoba (Argentina) in October of 2000. Since then he has had a number of postdoctoral, research, visiting scholar and faculty positions at Penn State, Louisiana State University, Cornell University, the University of Maryland, and Caltech. He also was a research scientist at the University of California San Diego and CEO and co-founder of FASTech, LLC, a high-tech startup located in San Diego, California. Currently he is a researcher with CONICET in Córdoba, Argentina.

This lecture has refreshments @ 03:00 pm

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