



**Old Dominion University
Department of Physics
Colloquium**

Wednesday, April 3, 2024

"A composable and asynchronously scalable Workflow for inverse Problem Solving"

Dr. Daniel Lersch

Time: 12:30-1:30 pm ET

Venue: hybrid, in-person Monarch Hall 1113B, or zoom

(<https://odu.zoom.us/j/99922830350?pwd=c1hyeHBFdEt3eTQ1QUp6SUxhWU9adz09&from=addon>),
passcode 740541

Abstract: Large scale, inverse probing solving deep learning algorithms have become an essential part of modern research and industrial applications. The complexity of the underlying inverse problem often poses challenges to the algorithm and require the proper utilization of high performance computing systems. Most deep learning algorithms require, due to their design, custom parallelization techniques in order to be resource efficient, while showing a reasonable convergence. This talk introduces SAGIPS, a scalable, asynchronous generative workflow for solving inverse problems on high-performance computing systems

Bio: Daniel Lersch started his career as a nuclear physicist at Jefferson Lab. He conducted research on light meson decays with focus on AI/ML driven data analysis. He transitioned to Jefferson Lab's Data Science Department in 2023. His primary research objectives are: (i) generative AI and (ii) Composable and scalable deep learning workflows.

All interested persons are cordially invited to attend.