

# PURDUE QUANTUM SCIENCE AND ENGINEERING INSTITUTE

Innovating quantum technologies

## *Quantum coherence in molecular Lanthanide complexes*

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Wednesday, May 5, 2021, 10 a.m.: [Zoom Link](#)

In this seminar entitled “Quantum coherence in molecular Lanthanide complexes” I will present the work done in my group relevant to coherent dynamic magnetic properties of electronic and nuclear spins in lanthanide-based molecular materials. I will present the potential of molecular magnetic materials for use as physical support for the implementation of quantum bits and gates for Quantum Technologies, as well as a scheme for intrinsic implementation of quantum error corrections in these systems by taking advantage of their coupled electronic qubit-nuclear qudit nature.



**Stergios Piligkos** is Associate Professor at the Department of Chemistry, University of Copenhagen and his general interests concern the areas of molecular and molecule-based magnetic materials.