## **Department of Mathematics** University of Notre Dame

# **GEOMETRIC ANALYSIS SEMINAR**

### **Speaker: Samuel Perez-Ayala Princeton University**

Date: Thursday, April 25, 2024 Time: 11:00 AM Location: 258 Hurley Bldg Zoom URL: NA



#### Lecture Title:

### **Eigenvalue Estimates for Asymptotically Hyperbolic Manifolds and their Submanifolds**

#### Abstract

I will explain how to obtain sharp upper bounds for the first eigenvalue  $\lambda_{1,p}$  of the *p*-Laplacian on any asymptotically hyperbolic manifolds. I will also talk about lower bounds for the first eigenvalue (p=2) on complete and non-compact submanifolds living in Poincaré-Einstein spaces whose boundary is of non-negative Yamabe type. This is joint work with Aaron J. Tyrrell.