

## ***PDE, COMPLEX ANALYSIS AND DIFFERENTIAL GEOMETRY SEMINAR***

**Guest Speaker: Dionyssis Mantzavinos**  
**University of Kansas**



**Date:** Wednesday, May 26, 2021

**Time:** 3:00 PM

**Location:** 258 Hurley Hall

**Zoom URL:** [notredame.zoom.us/j/92588616233](https://notredame.zoom.us/j/92588616233)

***Lecture Title:***

**On the nonlinear Schrödinger equation in domains with a boundary**

***Abstract***

We discuss the well-posedness of initial-boundary value problems for the nonlinear Schrödinger equation in one and higher dimensions. Our approach relies on Fokas's unified transform method for the solution of the forced linear Schrödinger equation. Furthermore, it depends on certain time (in one dimensions) or space-time (in higher dimensions) estimates for the linear Schrödinger initial value problem. This is joint work with Alex Himonas.