

## ***GRADUATE STUDENT SEMINAR***

**Guest Speaker: Elia Portnoy**

**MIT**

**Date:** Monday, January 25, 2021

**Time:** 4:00 PM

**Location:** Zoom

**Zoom URL:** [notredame.zoom.us/j/95815357423](https://notredame.zoom.us/j/95815357423)



***Lecture Title:***

**Distortions of Embedded Knots**

***Abstract***

Is it true that any knot can be embedded in  $\mathbb{R}^3$  so that the ratio between the intrinsic distance and induced distance is not too large? Pardon first showed that the answer was surprisingly, No! Later Gromov and Guth constructed knots with arbitrarily large distortion using hyperbolic geometry of 3-manifolds. I will sketch some ideas in Gromov and Guth's construction.