# Department of Mathematics
## University of Notre Dame

# *TOPOLOGY SEMINAR*

**Guest Speaker: Jeremy Miller**

**Purdue University**

*Date:* Tuesday, November 14, 2023
*Time:* 2:30 PM
*Location:* 258 Hurley Bldg
*Zoom Link:* NA



*Lecture Title:*
**Rognes' connectivity conjecture**

*Abstract*

Rognes' connectivity conjecture concerns the connectivity of a simplicial complex called the common basis complex. The equivariant homology of this complex is the $E^1$ page of a spectral sequence converging to the homology of $K$-theory spectra. I will describe joint work with Patzt and Wilson where we prove the connectivity conjecture for fields. I will also explain a connection between the homology the common basis complex and the André–Quillen homology of a certain equivariant ring built out of Steinberg modules.

Jeremy Miller - Purdue University