



## Topology Seminar at Texas State

When: 11:00-12:20, Friday, January 23, 2020

Where: Derrick Hall 333

Speaker: Dr. David Snyder

**Topic:** *On the topological dynamics of the solvent-excluded surface of a protein during flexing*

### ABSTRACT

Proteins perform important life functions. A given protein may have many viable conformations. Its solvent-excluded surface reflects how other molecules can interact with a given conformation of the protein. As the protein flexes between conformations this surface undergoes complex topological and geometric changes. This project's goal is to automate the calculation of the changes in the homology of these surfaces over the database of all known proteins in hopes that researchers can arrive at a deeper understanding of the biochemical significance of these changes.

