# Filip Misev - University of Regensburg

# Department of Mathematics University of Notre Dame

## TOPOLOGY SEMINAR

**Guest Speaker: Filip Misev** 

**University of Regensburg** 

Date: Tuesday, February 28, 2023

**Time:** 2:30 PM

Location: 258 Hurley Hall

**Zoom Link:** NA



### Lecture Title:

### Ribbon cobordism between knots and 3-manifolds

### Abstract

A ribbon cobordism between 3-manifolds is a cobordism which can be built without 3-handles. Ribbon cobordisms arise in the context of contact geometry; the knot theory of algebraic curves; and Fox's slice-ribbon question. I will briefly recall their role in low-dimensional topology. Then, I will present the following result, joint with Stefan Friedl and Raphael Zentner, and building on recent work of Agol: Rational homology ribbon cobordism is a partial order within the class of irreducible 3-manifolds.