**Texas State Topology Seminar**

Tuesday, 2017, October 17, 12:30-1:50 p.m., in ENC (HPB) 143

Speaker: Will Grilliette

**Topic: Normed Operator Ideals**

**ABSTRACT**

The notion of an ideal of a category arises in abstract algebra from the study of representations. However, specializing this notion to the category of Banach spaces gives rise to the study of normed operator ideals. Normed operator ideals produce different norms on families of continuous operators and have deep connections to the various norms on the tensor product.

This talk will focus on the entanglement between normed operator ideals and normed tensor products, particularly the construction of the nuclear and integral operators. These relationships culminate in contractive natural transformations from a tensor product bifunctor to the corresponding ideal.