" The mod 8 signature of a normal space mod 2, 4 and 8 "

Abstract: (Joint work with Larry Taylor)

It is well-known that the congruence classes of the signature of an oriented 4k-dimensional manifold are given homologically by the Euler characteristic mod 2, a Pontrjagin square mod 4, and a Kervaire-Brown invariant mod 8. A normal space is a space with a Spivak normal structure, but without the requirement of Poincare duality.

The talk will consider corresponding homological expressions for the congruence classes mod 2,4,8 of the mod 8 signature of an oriented 4k-dimensional normal space (which need not be the signature mod 8 in the non-Poincare case). The expressions for normal spaces are more subtle than in the manifold case.