$\mathbf{T}_{\text{EMPLE}} \; \mathbf{U}_{\text{NIVERSITY}} \; \mathbf{G}_{\text{EOMETRY}} \; \mathbf{S}_{\text{EMINAR}}$

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will speak on

Transverse invariants and bindings of open books

ABSTRACT: Let T be a transverse knot in (Y, ξ) which is the binding of some open book, (T, π) , for the ambient contact manifold (Y, ξ) . In this talk, we show that the transverse invariant, defined by Lisca, Ozsvath, Stipsicz, and Szabo (LOSS), is nonvanishing for such transverse knots. We will also discuss a vanishing theorem for the invariants defined by LOSS. As a corollary, we will see that if (T, π) is an open book with connected binding, then the complement of T has no Giroux torsion. Time permitting, we will also talk about a generalization of this theorem which removes the connected binding condition.

> Tuesday, 18 November 2008 Lecture at 1:10 pm Coffee, tea, and refreshments from 3-5 pm Room 617, Wachman Building Department of Mathematics