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Concordance invariants of null-homologous knots in thickened surfaces

In this talk, we describe the concordance properties of signature and determinant invariants for knots in thickened surfaces. If $K \subset \Sigma \times I$ is $\mathbb{Z}/2$ null-homologous and slice, we show that its signatures vanish and its determinants are perfect squares. These statements are derived from a cobordism result for closed unoriented surfaces in certain 4-manifolds. This talk is based on joint work with Hans U. Boden.