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Title: *Generalized Witten genus and vanishing theorem*

Abstract : We report our joint work with Q. Chen and F. Han, where we construct a mod 2 analogue of the Witten genus for $8k+2$ dimensional spin manifolds, as well as modular characteristic numbers for a class of spin^c manifolds which we call string^c manifolds. When these spin^c manifolds are actually spin, one recovers the original Witten genus on string manifolds. These genera vanish on string and string^c complete intersections in complex projective spaces.