1128-13-36 **Jason M Lutz*** (lutzj@gonzaga.edu). *Homological characterizations of quasi-complete intersections.*

Let R be a commutative Noetherian ring and I and ideal of R. The homology of a Koszul complex associated with I is an invariant of I, and if this homology vanishes in positive degree, then I is said to be a *complete intersection*. If the homology exhibits the structure of an exterior algebra, then I is said to be a *quasi-complete intersection*. Using Tate's "adjunction of variables", we obtain an extension of the Koszul complex; a result of Blanco, Majadas, and Rodicio yields that I is a quasi-complete intersection if and only if the homology of this infinite complex vanishes in positive degree. Our main results characterize quasi-complete intersections as those ideals for which the homology of the associated Tate construction vanishes in a finite band of sufficient size. (Received January 31, 2017)