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**Sean Sather-Wagstaff** and **Richard Wicklein\*** ([wickleinr@morningside.edu](mailto:wickleinr@morningside.edu)). *Codualizing Complexes*. Preliminary report.

Let  $R$  be a commutative, noetherian ring. A finitely generated  $R$ -module  $C$  is said to be semidualizing if  $\text{Ext}_R^i(C, C) = 0$  for all  $i > 0$  and  $R \xrightarrow{\cong} \text{Hom}_R(C, C)$ . When  $R$  is local, an artinian  $R$ -module  $T$  is said to be quasidualizing if  $\text{Ext}_R^i(T, T) = 0$  for all  $i > 0$  and  $\widehat{R} \xrightarrow{\cong} \text{Hom}_R(T, T)$ . Using the notion of  $\mathfrak{a}$ -cofiniteness, we introduce a unifying notion that recovers each of the above notions as special cases. We then discuss the translation of the property to the setting of complexes and examine the Auslander and Bass classes in the this setting. (Received September 16, 2013)