Saeed Nasseh and Sean Sather-Wagstaff* (sean.satherwagstaff@ndsu.edu). Local rings of embedding codepth at most 3 have only trivial semidualizing complexes. Preliminary report.

A finitely generated module C over a commutative noetherian ring R is semidualizing if $R \cong \operatorname{Hom}_R(C,C)$ and $\operatorname{Ext}_R^{\geq 1}(C,C) = 0$. More generally, a homologically finite R-complex is semidualizing if $R \simeq \mathbf{R} \operatorname{Hom}_R(C,C)$ in the derived category $\mathcal{D}(R)$. We prove that a local ring R of embedding codepth at most 3 has at most two semidualizing complexes up to shift-isomorphism, namely, R itself and a dualizing R-complex if one exists. (Received February 02, 2014)