1129-13-351 **Lars Winther Christensen*** (`lars.w.christensen@ttu.edu`), **Srikanth B Iyengar** and **Thomas Marley**. *Homological dimensions of modules over a commutative noetherian ring; what's new?*

For a finitely generated module M over a commutative noetherian local ring $(R, \mathfrak{m}, k)$, vanishing of $\mathrm{Tor}^R_{n+1}(k, M)$ for some $n \geq 0$ implies that M has finite flat dimension at most n. Similarly, vanishing of $\mathrm{Ext}^{n+1}_R(k, M)$ implies that M has finite injective dimension, as long as n is large enough, say, $n \geq \dim R$.

For modules that are not finitely generated, we prove similar statements that take all residue fields $k(\mathfrak{p}) = R_\mathfrak{p}/\mathfrak{p}R_\mathfrak{p}$ into account. (Received March 20, 2017)