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Lars Winther Christensen* (lars.w.christensen@ttu.edu), Department of Mathematics and Statistics, Texas Tech University, Lubbock, TX 79409-1042, and **David A Jorgensen**. *Tate (co)homology via pinched complexes*. Preliminary report.

Let R be a ring. For complexes of R -modules we introduce two constructions, which we call the pinched tensor product complex and the pinched Hom complex. (Visualizations of the complexes will be provided to justify the nomenclature.)

Our motivation for studying these constructions is their connections to Tate (co)homology. (1) For R -modules M and N that allow complete resolutions, one can compute the Tate cohomology groups $\widehat{\text{Ext}}_*^R(M, N)$ as the cohomology of the pinched Hom complex for these resolutions. (2) A parallel result for Tate homology opens to a construction of minimal complete resolutions for certain tensor product modules. (Received January 18, 2011)