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Olgur Celikbas (celikbaso@missouri.edu), Department of Mathematics, University of Missouri, Columbia, MO 65211, **Lars Winther Christensen** (lars.w.christensen@ttu.edu), Department of Mathematics and Statistics, Texas Tech University, Lubbock, TX 79409, **Li Liang*** (11iangnju@gmail.com), School of Mathematics and Physics, Lanzhou Jiaotong University, Lanzhou, 730070, Peoples Rep of China, and **Greg Piepmeyer** (gpiepmeyer@columbiabasin.edu), Department of Mathematics, University of Missouri, Columbia, MO 65211. *Stable homology of modules.*

In this talk, we study a stable homology theory for modules that was introduced by Vogel and Goichot. We establish new methods to compute stable homology. Based on them, we discuss properties of stable homology such as balancedness and vanishing. Finally, we show that agreement of stable homology with Tate homology characterizes the rings over which all Gorenstein projective modules are Gorenstein flat. (Received February 07, 2014)