

Meeting: 1006, Lubbock, Texas, SS 4A, Special Session on Homological Algebra and Its Applications

1006-18-18 **Alina C Iacob*** (iacob@ms.uky.edu), Department of Mathematics, University of Kentucky,
Lexington, KY 40506. *Remarks on balance in generalized Tate cohomology.*

We consider two pairs of complete hereditary cotorsion theories $(\mathcal{P}, \mathcal{M})$, $(\mathcal{M}, \mathcal{I})$, and $(\mathcal{C}, \mathcal{L})$, $(\mathcal{L}, \mathcal{E})$ on the category of left R -modules, such that $\mathcal{P} \subset \mathcal{C}$. We prove that for any left R -modules M, N and for any $n \geq 1$, the generalized Tate cohomology modules $\widehat{Ext}_{\mathcal{C}, \mathcal{P}}^n M, N$ can be computed either using a left \mathcal{C} -resolution of M and a left \mathcal{P} -resolution of M or using a right \mathcal{E} - and a right \mathcal{I} -resolution of N . (Received December 18, 2004)