

Meeting: 998, Houston, Texas, SS 2A, Special Session on Representations of Algebras

998-16-250 **Dan Zacharia*** (zacharia@syr.edu), Department of Mathematics, Syracuse University, Syracuse, NY 13244, and **Roberto Martinez-Villa**, Instituto de Matemáticas, UNAM Morelia, Mexico. *On the Auslander-Reiten quiver of the category of coherent sheaves over the projective n -space.* Preliminary report.

We describe the shape of the Auslander-Reiten quiver of the category of coherent sheaves by looking at the A-R quiver of the category of linear modules over an exterior algebra. Using techniques from the representations of finite dimensional algebras, we study the components containing locally free sheaves, and we also discuss the existence of vector bundles of small ranks. (Received February 29, 2004)