1054-16-92 **Nguyen Viet Dung*** (nguyend2@ohio.edu), Department of Mathematics, Ohio University-Zanesville, Zanesville, OH 43701. *A key module over pure semisimple rings.*

Let R be a left pure semisimple ring, i.e. a ring R such that every left R-module is a direct sum of finitely generated modules. It is an open problem whether such a ring R has finite representation type. In 1990, B. Huisgen-Zimmermann proved the existence of a strong preinjective partition and introduced preinjective modules in the category R-mod of finitely generated left R-modules. In 2007, L. Angeleri Hügel introduced and studied a "key module" W over a hereditary left pure semisimple ring R, where W is the direct sum of non-isomophic non-preinjective indecomposable direct summands of direct products of preinjective left R-modules. In this talk we discuss various properties of a key module W over a left pure semisimple ring R satisfying the condition that there are no non-zero homomorphisms from preinjective modules to non-preinjective indecomposable modules in R-mod. In particular, W is a finitely generated product-complete module and W is endofinite if and only if R is of finite representation type. (This is joint work with José Luis García). (Received September 07, 2009)