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

998-16-309 **Christof Geiss*** (christof@matem.unam.mx), Ciudad Universitaria, Mexico D.F. 04510. *The universal cover of a preprojective algebra.*

Let Λ be a hereditary finitedimensional connected algebra. We choose the corresponding preprojective algebra Π such that it admits a Galois-covering Π with $\mathrm{Add}(\widetilde{\Pi}) \cong D^b(\Lambda\text{-mod})$. Using this triangulated structure we obtain the formulas

$$\tau_{\widetilde{\Pi}} M \cong \Omega^{-1}_{\widetilde{\Pi}} M^{(-1)} \text{ and } \tau_{\widetilde{\Pi}} \widetilde{\Pi}^6 M \cong M^{(6-c(\Lambda))}$$

in $\widetilde{\Pi}$-$\underline{\mathrm{mod}}$, where $c(\Lambda)$ is the Coxeter-number of Λ.

Moreover we find $\widetilde{\Pi}$-$\underline{\mathrm{mod}} \cong D^b(\underline{\Gamma}(\Lambda)\text{-mod})$ where $\underline{\Gamma}(\Lambda)$ is the stable Auslander algebra of Λ. Finally $\underline{\Gamma}(\Lambda)$ is quasitilted iff $c(\Lambda) \leq 6$ which explains the good understanding of Π in thos cases. (Received March 01, 2004)