



# Jose Antonio de la Pena

## Coxeter transformations, representations of algebras and singularities.

**TIME:**

20 Nov 2006, 16:00 - 18:00

**LOCATION:**

FU-Berlin, Institut für Mathematik  
Arnimallee 3, Rm. 119

We study Coxeter transformations of algebras as matrices induced by the Auslander-Reiten transformation in the derived category of the module category. The spectral behavior of these transformations provide enough information on the structure of graded commutative algebras associated to the Auslander-Reiten transformation (generalizations of preprojective algebras). In case the underlying field is the complex numbers these graded algebras are rings of singularities associated to Fuchsian groups.

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