

Universidad Complutense de Madrid

Facultad de Ciencias Matemáticas

Departamento de Álgebra

Teléfono: 91 394 45 70, Fax: 91 394 46 62

Correo electrónico: Algebra@mat.ucm.es

## SEMINARIO DE GEOMETRÍA ALGEBRAICA

Martes 9 de mayo de 2006, 15:00, Seminario 238

**Sabir Gusein-Zade**

(Universidad Estatal de Moscú)

Impartirá la conferencia:

### On Poincaré series of filtrations on equivariant functions of two variables

*Summary.* Let a finite group  $G$  act on the complex plane  $(\mathbb{C}^2, 0)$ . We consider multi-index filtrations on the spaces of germs of holomorphic functions of two variables equivariant with respect to 1-dimensional representations of the group  $G$  defined by components of a modification of the complex plane  $\mathbb{C}^2$  at the origin or by branches of a  $G$ -invariant plane curve singularity  $(C, 0) \subset (\mathbb{C}^2, 0)$ . We give formulae for the Poincaré series of these filtrations. In particular, this gives a new method to obtain the Poincaré series of analogous filtrations on the rings of germs of functions on quotient surface singularities. This is a joint work with A.Campillo and F.Delgado.