

## SEMINARIO

**André Belotto**

*Université Paul Sabatier, Toulouse*

### ***Resolution of singularities of the cotangent sheaf of a singular variety***

**Abstract:** The subject of the talk is resolution of singularities of differential forms on an algebraic or analytic variety. We address the problem of finding a resolution of singularities  $\sigma : X \rightarrow X_0$  of a singular algebraic or analytic variety  $X_0$  such that the pulled back cotangent sheaf of  $X_0$  (i.e., the pull-back of the differential forms defined in  $X_0$ ) is given, locally in  $X$ , by monomial differential forms (with respect to a suitable coordinate system). This problem is related with monomialization of maps, the  $L^2$  cohomology of singular varieties and reduction of singularities of vector-fields. In a work in collaboration with Bierstone, Grandjean and Milman, we give a positive answer to the problem when  $\dim X_0 \leq 3$ .

**Seminario A125. Facultad de Ciencias**  
**Miércoles 22 de Marzo de 2017 (18:00)**  
**Organiza: GIR SINGACOM**

