

Seminari de Geometria Algebraica 2014/2015 (UB-UPC)

Divendres 17 d'octubre a les 15 hs, aula B1 FM-UB

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## Puntos estables del esquema de arcos en característica $p \geq 0$

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The space of arcs  $X_\infty$  of a singular variety  $X$  over a perfect field  $k$  has finiteness properties when we localize at the stable points of  $X_\infty$ . This allows to associate or recover valuative invariants of  $X$  from its space of arcs. I will discuss some general properties of stable points and induced morphisms at stable points, emphasizing the results obtained for  $\text{char } k > 0$ . As an application, I will describe the rings  $\widehat{\mathcal{O}_{X_\infty, P}}$ , where  $X$  is a rational double point in characteristic  $p > 0$  and  $P$  is the stable point defined by an essential divisorial valuation; this has connection with the Nash problem of arcs.

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