

Universidad Complutense de Madrid

Facultad de Ciencias Matemáticas

Departamento de Álgebra, Geometría y Topología

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

Correo electrónico: Algebra@mat.ucm.es

SEMINARIO DE GEOMETRIA ALGEBRAICA

Jueves, 18 de enero de 2018, **11:00**, Seminario 238

Hussein Mourtada

Universidad de París VII

Impartirá la conferencia

Others Rogers Ramanujan type identities and an infinite dimensional Groebner basis

Resumen.

The arc space is the moduli space that parametrizes germs of curves drawn on a variety X . The space of arcs centered at a point of a scheme X has a natural cone structure. This permits to define an invariant of singularities that we call: The Arc Hilbert Poincaré series. In the first part of the talk, we will describe this invariant and give motivations for it. We also will show a link between this invariant and some identities from the theory of integer partitions. In the second part, we will show how this link to partition theory can be applied to Groebner bases for some infinitely generated ideals. The first part is a joint work with Clemens Brucke and Jan Schepers. The second part is a joint work with Pooneh Afsharijoo.