

# COLLOQUIUM

## Metrics on algebraic varieties

**Prof. SIMON DONALDSON**

(Imperial College London, UK, and  
Simon Center for Geometry and Physics, US)

*Thursday 19 January 2017, 13 h.  
Aula Miguel de Guzmán*

**Abstract:** A circle in the plane is a geometric object which can be understood both through calculus and differential geometry (constant curvature) and through algebraic geometry – defined by a polynomial of degree 2. Interactions between differential geometry and algebraic geometry form a huge area in current research, with the emphasis now on complex algebraic varieties and the differential geometric structures being Riemannian metrics satisfying versions of Einstein’s equation, or related conditions. The lecture will give a general survey of this field, with particular focus on connections to algebro-geometric notions of “stability”.



Facultad de Ciencias Matemáticas  
Universidad Complutense de Madrid

Plaza Ciencias 3, 28040 Madrid

<http://matematicas.ucm.es/doctorado-honoris-causa>