

ANUNCIO DE CICLO CONFERENCIAS

Geometry of real hypersurfaces in hyperbolic spaces

a cargo de

Miguel Domínguez Vázquez

Profesor Ayudante Doctor

Universidad Autónoma de Madrid



The theory of surfaces in the Euclidean space and representation theory of Lie groups are two classical areas in Mathematics. A natural extension of both arises from considering nonflat ambient spaces with large isometry group. Thus, there are very beautiful and profound results in the interplay between submanifold geometry and isometric actions not only in spaces of constant curvature, but also in other contexts, such as compact symmetric spaces or 3-dimensional homogeneous spaces.

The study of submanifolds and isometric actions on hyperbolic spaces over the complex numbers, the quaternions and the octonions frequently requires specific techniques. The main objective of this minicourse is to present some of these ideas and recent results from an introductory viewpoint, with special focus on the geometry of real hypersurfaces (i.e. submanifolds of real codimension one) on these ambient spaces. A powerful approach stems from the fact that hyperbolic spaces are noncompact symmetric spaces. Thus, we will talk about symmetric spaces of noncompact type, their algebraic structure and their Lie group model, and how this underlying structure interacts with the geometry of certain types of hypersurfaces with a high degree of symmetry.

Días: Lunes 18, martes 19 y miércoles 20 de febrero de 2019.

Lugar: Sala de Grados 2, Facultad de Ciencias, Campus de Puerto Real.

Horario: De 15:30h a 18:00h.

Más información: <http://c101.uca.es/eventos>

Organiza: Pr. José M. Espinar, Investigador Ramón y Cajal, Universidad de Cádiz.

Financiación: Programa Ramón y Cajal - Proyecto 18.IN.RC.1602; Ministerio de Economía y Competitividad - Proyecto MTM2016-80313-P; Programa de Doctorado en Matemáticas; Escuela de Doctorado de la Universidad de Cádiz.