

Seminario de Geometría y Topología



Higher order partial differential equations in physics and (mainly) geometry

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Resumen:

This talk will summarize our recent progresses in the analysis of a family of higher order (fourth and higher) partial differential equations that arise in physics and geometry. In geometry, these equations are related to the Willmore problem and the Willmore and Gaussian curvature flows. In physics, to the theory of non-equilibrium phase transitions. We will present the derivation of these models and the extraordinary analytical properties that they enjoy. Then, we will outline the theory of existence of solutions and other qualitative properties we have proven in recent times. Finally there will be time to discuss some open questions.

Lugar: Universidad Complutense de Madrid

Facultad de Ciencias Matemáticas

Departamento de Geometría y Topología, Sala 225

Fecha y Hora: Martes, 3 de noviembre de 2015, 12:00

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