



DEPARTAMENTO DE  
GEOMETRÍA Y TOPOLOGÍA

## Curso Matemática Pura Intertemática



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# Topology at Infinity

## Resumen

These lectures will introduce modern tools of geometric topology to study noncompact spaces, especially manifolds and polyhedra. The main goal is to prove a Structure Theorem for Tame Ends of high dimensional manifolds: near infinity the manifold has a periodic shift map. By concentrating on this theorem the tools of controlled topology and approximate fibrations will be seen in action. The role of the end space as a homotopy model of the behavior of a space at infinity will be emphasised.

## Programa

- **L1: Introduction and overview.**
- **L2: Tameness and bounded homotopy equivalents at infinity.**
- **L3: Manifold approximate fibrations I.**
- **L4: Manifold approximate fibrations II and infinite cyclic covers.**
- **L5: Conclusion, bits and pieces, and future directions.**

Organizado por el proyecto de investigación Teoría de la forma (MTM2006-0825), el departamento de Geometría y Topología y el Instituto de Matemática Interdisciplinar.

**3-7 de marzo de 2007 (12h-13h30)**

**Seminario 224, Facultad de CC. Matemáticas, UCM**