

### Institut de Matemàtica

# Col·loqui

# Generic regularity in free boundary problems

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Free boundary problems are those described by PDE's that exhibit a priori unknown (free) interfaces or boundaries. They appear in Geometry, Physics, Probability, Biology, or Finance, and their study uses tools from PDE, Geometric Measure Theory, and Calculus of Variations. The goal of this talk is to present different free boundary problems, explain the main known results in this context, and give an overview of the current research and open problems. In particular, we will discuss a long-standing open question in the field which concerns the generic regularity of free boundaries, and present some new results in this direction.

**Lloc:** Aula T1, Facultat de Matemàtiques i Informàtica, UB **Hora:** 12.15

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