GENERIC REGULARITY IN OBSTACLE PROBLEMS

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The classical obstacle problem consists of finding the equilibrium position of an elastic membrane whose boundary is held fixed and which is constrained to lie above a given obstacle. By classical results of Caffarelli, the free boundary is C^∞ outside a set of singular points. Explicit examples show that the singular set could be in general (n-1)-dimensional — that is, as large as the regular set. In a recent paper with Ros-Oton and Serra we show that, generically, the singular set has zero H^{n-4} measure (in particular, it has codimension 3 inside the free boundary), solving a conjecture of Schaeffer in dimension $n \leq 4$. The aim of this talk is to give an overview of these results.

Where:
Pre-registration is required at the link
https://sissa-it.zoom.us/webinar/register/WN_ca93G01TQ6eO0zn99mkp-g
After registering, you will receive a confirmation email containing information about joining the webinar.

When: July 2nd 2020, 4PM

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