Generic regularity of free boundaries for the thin obstacle problem

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The Signorini problem is a free boundary problem arising from elastostatics, and can also be seen as the counterpart to the obstacle problem when the obstacle has codimension 1. The main questions are understanding the regularity of solutions and the regularity of the free boundary.

In the first part of the talk, I will present the problem and discuss some relevant known results. Then, I will explain the concept of generic regularity in free boundary problems.

Finally, I will expose my recent result with Fernández-Real about generic regularity in the Signorini problem, and comment briefly on the recent developments that have made it possible.

References

[1] X. Fernández-Real, D. Torres-Latorre, *Generic regularity of free boundaries for the thin obstacle problem*, preprint arXiv (2022).

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