



UNIVERSITÀ
DI TRENTO

Dipartimento di
Matematica



PhD in Mathematics

**“Doc in Progress” and #iorestoacasa are pleased
to introduce you to**

Michele Caselli

Scuola Normale Superiore di Pisa

PhD in Mathematics

Fractional minimal surfaces: an invitation to the nonlocal regime

In 2010 L.Caffarelli, J.-M. Roquejoffre and O. Savin introduced the notion of fractional perimeter and nonlocal minimal surface. At the time, it was unclear whether these objects and techniques could be used to get a deeper understanding of other classical problems in mathematics. Over the years an increasing number of deep connections between nonlocal minimal surfaces and some problems at the interface of analysis and geometry have been found, to the point that they also turned out to be an effective tool in the study of delicate problems in classical minimal surfaces. In this talk, we will introduce the notion of nonlocal minimal surfaces, highlighting similarities and differences with classical minimal surfaces. Lastly, I will present some recent work, jointly with Joaquim Serra and Enric Florit Simon, on the fractional version of Yau’s conjecture.



Thursday, April 7 – at 16:30 CET

**The seminar will be held both in presence in Seminar Room “-1”
(Department of Mathematics) and online via Zoom.**

**To join the event, please contact docinprogress.unitn@gmail.com
using an institutional e-mail address for both reserving a sit in the
seminar room or obtaining login credentials.**