



In the framework of the activities of the PhD programme in Mathematical Sciences

Prof. **Enrico Valdinoci**, University of Western Australia
and
Dr. **Matteo Cozzi**, University of Milan

will offer a PhD course on

Analytical aspects of local and nonlocal minimal surfaces

Abstract

The aim of the course is to present some results from the theory of minimal surfaces, seen from the point of view of Analysis. Our main focus will be on their existence, (ir)regularity, and qualitative properties. We will follow the classical approach of De Giorgi, based on sets of finite perimeter, and complement it with new ideas coming from contemporary research on PDEs. Finally, we will discuss the notion of nonlocal minimal surface introduced in 2010 by Caffarelli, Roquejoffre & Savin, highlighting their similarities and differences with the classical ones.

The course will be held via Zoom platform
from **March 23 to April 29, 2021**

from **8.30 to 10.30** with the following scheduling:

23, 25, 30 March
8, 13, 15, 20, 22, 27, 29 April

The Zoom link will be provided directly by professors