

Thursday 3.2 13h30 – 15h00

Pedro Gaspar

Title: A partial differential equations approach to the area functional via phase transitions.

Abstract: In this talk, we will discuss the connections between certain PDEs that arise in mathematical models for phase transition phenomena, and one of the most natural geometric functionals: the area functional. I will talk about recent results that illustrate how one can study minimal surfaces and mean curvature flows using information about the space of solutions to these differential equation equations; and vice versa. I will also discuss some potential related research directions.