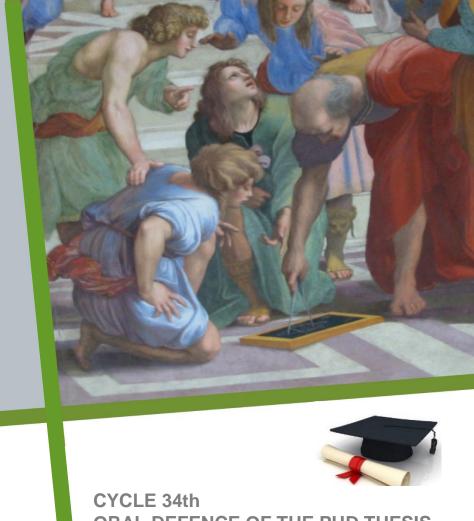


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#### **Thursday 7 April 2022 – at 9:30 am** Seminar room "-1"

The event will take place online through the ZOOM platform. To get the access codes please contact the secretary office

### **Mattia Vedovato**

PhD Student in Mathematics

## Some variational and geometric problems on metric measure spaces

#### Abstract:

In this final presentation of my thesis, we will take a glance at two problems in calculus of variations over different metric measure spaces. To start with, we will see an instance of Bernstein's problem in the first Heisenberg group: we will introduce a condition under which stable solutions to the Weak Minimal Surface Equation in H1 are forced to be vertical planes. In the second part, we will switch to the context of RCD(K,N) spaces and explain how Talenti's comparison theorem extends therein: namely, when dealing with an elliptic boundary problem, we will see how the symmetrization of a solution compares with the solution of a suitably symmetrized problem.

Supervisor: Francesco Serra Cassano