

# RIGIDITY ESTIMATES IN NONLINEAR ELASTICITY

ELISA DAVOLI

A crucial question in nonlinear elasticity is to understand how far a deformation with finite energy is from being a simple rigid movement. In this minicourse I will review the basic results on quantitative rigidity estimates in nonlinear elasticity, present an application in the theory of dimension reduction, and conclude with an overview of the state-of-the-art for elastic solid materials undergoing phase transitions.