



Mestrado Acadêmico
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APRESENTA:

Flipping regularity via Harnack approach and applications to nonlinear elliptic problem

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Flipping regularity via Harnack approach and applications to nonlinear elliptic problems

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Abstract

In this talk, I will present recent advances in the regularity theory of nonlinear elliptic problems. The results are related to a class of functions that satisfy abstract conditions associated with the Weak Harnack Inequality and L^p - L^∞ estimates. These features allow one-sided control to become complete control with estimates. These results can be applied to a wide spectrum of circumstances ranging from supersolutions to a fully nonlinear elliptic to Q -minimizers of Gianquinta and Giusti in the Calculus of Variations. In particular, this gives new insights and encompasses recent results extending the sharp version of the Caffarelli-Kohn-Nirenberg-Spuck a priori estimates obtained in collaborations with Alessio Figalli (ETH-Zurich) and Ederson Braga (UFC). This is a work in Collaboration with Edgard Pimentel (University of Coimbra).