POSTER

Flipping regularity and fully nonlinear equations with unbounded ingredients

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Abstract

Our work resonates in the context of nonlinear elliptic problems, including supersolutions to fully nonlinear elliptic equations and viscosity classes. The main goal of our research is to generalize recent results for equations in which the ingredients are merely unbounded. In particular, we prove an abstract result, referred to in the literature as flipping geometries, ensuring that one-sided geometric control yields two-sided estimates for functions satisfying general conditions. Here we will also touch on the main ingredients used in our findings, namely a weak Harnack inequality and a generalized maximum principle.

Keywords Flipping geometries; regularity theory; weak Harnack inequality; generalized maximum princile.

References

[1] Diego R. Moreira, Edgard A. Pimentel: *Flipping regularity via a Harnack approach and applications to nonlinear elliptic problems.*