

Recent results for a class of non-uniformly elliptic problems

ABSTRACT

I will discuss some recent results on a class of non-uniformly elliptic problems modelled upon the double phase energy

$$w \mapsto \int [|Dw|^p + a(x)|Dw|^q] \, dx.$$

The talk is based on papers [1, 2, 3, 4].

REFERENCES

- [1] I. Chlebicka, C. De Filippis, Removable sets in non-uniformly elliptic problems. *Annali di Matematica*, (2019). <https://doi.org/10.1007/s10231-019-00894-1>
- [2] C. De Filippis, G. Mingione, Manifold constrained non-uniformly elliptic problems. *J. Geom. Analysis*, (2019). <https://doi.org/10.1007/s12220-019-00275-3>
- [3] C. De Filippis, J. Oh, Regularity for multi-phase variational problems. *Journal of Differential Equations* 267, 3, 1631-1670, (2019).
- [4] C. De Filippis, G. Palatucci, Hölder regularity for nonlocal double phase equations. *Journal of Differential Equations* 267, 1, 547-586, (2019).