

# SEMINÁRIO DE ANÁLISE

## Removable singularities for the divergence operator in weighted Lebesgue spaces

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**Abstract.** In this joint work with E. Russ and H. Tuominen, we investigate which sets in Euclidean space have the property that when the divergence of a vector field in a given weighted  $L^p$  space is zero outside it (in the sense of distributions), then it vanishes in the whole space. The characterization of such sets involves weighted versions of Hausdorff measures and weighted capacities.

## References

- [1] L. Moonens, E. Russ and H. Tuominen, Singularities for  $\operatorname{div} v = f$  in weighted Lebesgue spaces, *Indiana Univ. Math. J.* **67**(2), pp. 859-887, 2018.