

INTERIOR REGULARITY FOR FRACTIONAL SYSTEMS

We study the regularity of solutions of elliptic fractional systems of order $2s$, $s \in (0, 1)$, where the right hand side f depends on a nonlocal gradient and has the same scaling properties as the nonlocal operator. Under some structural conditions on the system we prove interior Hölder estimates in the spirit of [1]. Our results are stable in s allowing us to recover the classic results for elliptic systems due to S. Hildebrandt and K. Widman [3] and M. Wiegner [4]. This is a joint work with L. Caffarelli.

REFERENCES

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