Harnack inequalities for master equations.

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SUMMARY

In this talk we show parabolic interior and boundary Harnack inequalities and local Hölder continuity for solutions to master equations of the form $(\partial_t + L)^s u = f$ in $\mathbb{R} \times \Omega$, where L is a divergence form elliptic operator and $\Omega \subseteq \mathbb{R}^n$. To this end, we shall see that fractional powers of parabolic operators $\partial_t + L$ can be characterized by means of a degenerate parabolic extension problem.

The content of this talk is based on a joint work with A. Biswas y P.R. Stinga, see [1].

References

[1] A. Biswas, M. De León-Contreras, P.R. Stinga. Harnack inequalities and Hölder estimates for master equations. *arXiv:1806.10072*.

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