

Zero-Convergent Solutions for Equations with Generalized Relativistic Operator

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This is the joint research with Mauro Marini and Serena Matucci from University of Florence, and is motivated by our recent results obtained for differential equations with Euclidean or Minkowskii mean curvature operator, see [1].

A new abstract fixed point theorem is presented and applied to the solvability of a boundary value problem on the half-line for a differential equation with the generalized relativistic operator. The concept of principal solutions for half-linear equations is also used for finding suitable *a-priori* bounds for solutions.

References

- [1] Z. Došlá, M. Marini and S. Matucci, *On unbounded solutions for differential equations with mean curvature operator*, Czech. Math. J. (2023). <https://doi.org/10.21136/CMJ.2023.0111-23>