Torsional creep problems involving Grushin-type operators

Denisa STANCU-DUMITRU

Department of Mathematics and Computer Sciences, University Politehnica of Bucharest, Romania

denisa.stancu@yahoo.com

The asymptotic behaviour of solutions for a family of torsional creep problems involving the Grushin p-Laplacian is investigated. In particular, our results complement some earlier works on the topic by L. E. Payne & G. A. Philippin [3], B. Kawohl [2] and T. Bhattacharya, E. DiBenedetto and J. Manfredi [1]. This is based on a joint work with Mihai Mihailescu. This presentation is partially supported by CNCS-UEFISCDI Grant No. PN-III-P1-1.1-TE-2019-0456.

References

[1] T. Bhattacharya, E. DiBenedetto, & J. Manfredi: Limits as $p \to \infty$ of $\Delta_p u_p = f$ and related extremal problems, *Rend. Sem. Mat. Univ. Politec. Torino*, special issue (1991), 15-68.

[2] B. Kawohl: On a family of torsional creep problems, *J. Reine Angew. Math.* **410** (1990), 1-22.

[3] L. E. Payne & G. A. Philippin: Some applications of the maximum principle in the problem of torsional creep, *SIAM J. Appl. Math.* **33** (1977), 446-455.