

Monotonic sequences of minimal solutions for a certain class of elliptic systems

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We consider a certain class of systems of elliptic problems in exterior domains. The main goal of this talk is to formulate sufficient conditions guaranteeing the existence of decaying solutions of the system. We focus on the construction of nondecreasing sequences of minimal solutions with finite energy in a neighborhood of infinity. Our method can be applied for nonlinearities which are negative at the origin (semipositone problems).

References

- [1] M. Chhetri, L. Sankar, R. Shivaji, B. Son, *An existence result for superlinear semipositone p -Laplacian systems on the exterior of a ball*, Differential and Integral Equations 31, 643-656 (2018)
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