

Symmetry properties of some solutions to some semilinear elliptic equations

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Abstract. In this paper we prove some symmetry results for entire solutions to the semilinear equation $-\Delta u = f(u)$, with f nonincreasing in a right neighbourhood of the origin. We consider solutions decaying only in some directions and we give some sufficient conditions for them to be radially symmetric with respect to those variables, such as periodicity or the pointwise decay of some derivatives.

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