

A comparison result for semilinear elliptic equations.

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Let $\Omega \subset \mathbb{R}^n$ be a C^2 bounded domain and Ω^* the ball centered at 0 with the same measure as Ω . Let $u \in H_0^1(\Omega)$ be a solution of an elliptic problem of the form $-\operatorname{div}(A(x)\nabla u) + H(x, u, \nabla u) = 0$ in Ω under Dirichlet boundary condition. Under suitable growth assumptions on H , we prove comparison results between the Schwarz rearrangement of u and the solution of a radially symmetric problem in Ω^* . This is joint work with François Hamel.