Micheletti, Anna Maria; **Pistoia, Angela**

A multiplicity result for a class of superlinear elliptic problems. (English) Zbl 0814.35038

Port. Math. 51, No. 2, 219-229 (1994).

Summary: We prove the existence of at least two solutions for a superlinear problem $-\Delta u = \Phi(x,u)+\tau e_1$ ($u \in H_0^1(\Omega)$) and e_1 is the first eigenvector of $(-\Delta, H_0^1(\Omega))$, when τ is large enough, if $\Phi \in C(\mathbb{R},\mathbb{R})$ and $\Phi(x,s) = g(x,s) + h(x,s)$ where h is a superlinear nonlinearity with a suitable growth at $+\infty$ and g is asymptotically linear.

MSC:

35J65 Nonlinear boundary value problems for linear elliptic equations
35J60 Nonlinear elliptic equations

Keywords:

semilinear elliptic equation; superlinear nonlinearity

Full Text: EuDML