

POLITECNICO DI TORINO Repository ISTITUZIONALE

Nontrivial solutions of p-superlinear p-Laplacian problems via a cohomological local splitting

Original

Nontrivial solutions of p-superlinear p-Laplacian problems via a cohomological local splitting / DEGIOVANNI M.; LANCELOTTI S.; PERERA K.. - In: COMMUNICATIONS IN CONTEMPORARY MATHEMATICS. - ISSN 0219-1997. -STAMPA. - 12:3(2010), pp. 475-486.

Availability: This version is available at: 11583/2380847 since:

Publisher: World Scientific Publishing

Published DOI:10.1142/S0219199710003890

Terms of use: openAccess

This article is made available under terms and conditions as specified in the corresponding bibliographic description in the repository

Publisher copyright

(Article begins on next page)

NONTRIVIAL SOLUTIONS OF *p*-SUPERLINEAR *p*-LAPLACIAN PROBLEMS VIA A COHOMOLOGICAL LOCAL SPLITTING

MARCO DEGIOVANNI, SERGIO LANCELOTTI AND KANISHKA PERERA

ABSTRACT. We consider a quasilinear equation, involving the p-Laplace operator, with a p-superlinear nonlinearity. We prove the existence of a nontrivial solution, also when there is no mountain pass geometry, without imposing a global sign condition. Techniques of Morse theory are employed.