Weak solutions of quasilinear elliptic systems via the cohomological index

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ABSTRACT. In this talk we present some existence results for a quasilinear elliptic system involving operators of Leray-Lions type. Our approach relies on variational methods and, in particular, on a cohomological local splitting which allows one to prove the existence of a nontrivial solution.

This is joint work with Anna Maria Candela, Giuliana Palmieri and Kanishka Perera. 1