Superlinear problems without Ambrosetti and Rabinowitz growth condition

Marco Aurelio Soares Souto Universidade Federal de Campina Grande, Brazil

Abstract. Superlinear elliptic boundary value problems without Ambrosetti and Rabinowitz growth condition are considered. Existence of nontrivial solution result is established by combining some arguments used by Struwe and Tarantello and Schechter and Zou (also by Wang and Wei). Firstly, by using the mountain pass theorem due to Ambrosetti and Rabinowitz is constructed a solution for almost every parameter λ by varying the parameter λ . Then, it is considered the continuation of the solutions.