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O H Miyagaki* (olimpio@ufv.br), departamento de matematica, Unnversidade Federal de Viçosa, viçosa, MG 36570-000, Brazil. *Existence and multiplicity of solutions for a Dirichlet problem involving the $p(x)$ - Laplace operator.* Preliminary report.

In this paper we study the existence of positive solution of a class of nonlinear eigenvalue problems involving the $p(x)$ -Laplace operator with zero Dirichlet boundary condition, where p is a continuous functions satisfying $p(x) > 1, \forall x$. Multiplicity result is established by combining sub and super method with variational techniques. This is joint work with S. Lorca and P. Ubilla. (Received February 12, 2008)