Non autonomous perturbations for a class of quasilinear elliptic equations on $\mathbb{R}$

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Abstract. This paper is concerned with the existence of two positive solutions for a class of quasilinear elliptic equations on $\mathbb{R}$ involving the p-Laplacian, with a non autonomous perturbation. The first solution is obtained as a local minimum in a neighborhood of 0 and the second one by a mountain-pass argument. The special features of the problem here is the "complex" structure of the linear part which, in particular, oblige to work into the space $W^{1,p}(\mathbb{R})$. Then one faces problems in the convergence of the sequences of derivatives $u_n' \to u'$. This is a joint work with P. C. Carrião and O. H. Miyagaki.