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A RELATION BETWEEN TWO CLASSES OF INDEFINITE WEIGHTS IN SINGULAR ONE–DIMENSIONAL p–LAPLACIAN PROBLEMS

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Abstract. We introduce several types of classes of an indefinite weight h in singular one-dimensional p-Laplacian problems

$$\varphi_p(u'(t))' + h(t)f(u(t)) = 0,$$

where $\varphi_p(x) = |x|^{p-2}x, p > 1$ and $h \in C((0,1),[0,\infty))$ may be singular at 0 and/or 1 and $f \in C(\mathbb{R},\mathbb{R})$. We show a relation among them according to p employing Minkowski inequality and integral transformations.

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