Maximum and antimaximum principles for second order linear ODEs with a non-constant damping coefficient

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Abstract

We shall discuss maximum and antimaximum principles for the periodic problem

$$u'' = p(t)u + g(t)u'; \quad u(0) = u(\omega),\ u'(0) = u'(\omega),$$

where $p, g\colon \mathbb{R} \to \mathbb{R}$ are ω-periodic (in general, sign-changing) locally Lebesgue integrable functions.