

**Hasil, Petr****Conditional oscillation of half-linear differential equations with periodic coefficients.** (English) [Zbl 1212.34110](#)

Arch. Math., Brno 44, No. 2, 119-131 (2008).

Summary: We show that the half-linear differential equation

$$[r(t)\Phi(x')] + \frac{s(t)}{t^p}\Phi(x) = 0$$

with  $\alpha$ -periodic positive functions  $r, s$  is conditionally oscillatory, i.e., there exists a constant  $K > 0$  such that the equation with  $\gamma s(t)/t^p$  instead of  $s(t)/t^p$  is oscillatory for  $\gamma > K$  and nonoscillatory for  $\gamma < K$ .**MSC:****34C10** Oscillation theory, zeros, disconjugacy and comparison theory for ordinary differential equationsCited in **24** Documents**Keywords:**

oscillation theory; conditional oscillation; half-linear differential equation

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