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Oscillation theory for linear second-order differential systems. (English) Zbl 0629.34040

Oscillation, bifurcation and chaos, Proc. Annu. Semin., Toronto/Can. 1986, CMS Conf. Proc. 8, 187-197 (1987).

[For the entire collection see [Zbl 0618.00006](#).]

Authors' abstract: This article is concerned with the oscillatory behavior at infinity of the solutions $y : [a, \infty) \rightarrow R^n$ of a system of second order differential equations, $y''(t) + Q(t)y(t) = 0$, $t \in [a, \infty)$; Q is a continuous function on $[a, \infty)$, whose values are real symmetric matrices of order n . It is shown that a solution is oscillatory at infinity if the largest eigenvalue of the matrix $\int_a^t Q(t)dt$ is sufficiently large on a sufficiently large set of t -values.

Reviewer: [N.L.Maria](#)

MSC:

[34C10](#) Oscillation theory, zeros, disconjugacy and comparison theory for ordinary differential equations

[34A30](#) Linear ordinary differential equations and systems

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Keywords:

[second order differential equations](#)