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Title: Spectrum of a nonautonomous dynamics for growth rates

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For a nonautonomous dynamics defined by a sequence of matrices, we consider the notion of nonuniform spectrum defined in terms of nonuniform exponential dichotomies with an arbitrarily small nonuniform part. The exponential behavior may be given by an arbitrary growth rate, thus including dynamics for which the Lyapunov exponents are all zero or all infinite. We describe all possible nonuniform spectra and the asymptotic behavior of the dynamics on certain invariant subspaces. In addition, we obtain results for one-sided and two-sided dynamics. Finally, we describe all possible nonuniform spectra for a nonautonomous dynamics with continuous time.

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