

## Selected Abstracts from Other Physical Review Journals

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*Abstracts of papers that are published in other Physical Review journals and may be of interest to Physical Review A readers are printed below.*

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**Nonautonomous and nonlinear effects in generalized classical oscillators: A boundedness theorem** L. Ferrari C. Degli Esposti Boschi *Dipartimento di Fisica dell'Università di Bologna and Istituto Nazionale per la Fisica della Materia, Unità di Bologna, viale Berti-Pichat, 6/2, 40127, Bologna, Italy* (Received 13 March 2000)

The phenomenon of exponential instability, arising in certain nonautonomous linear oscillators, motivates the question about the boundedness of amplitude and energy of the oscillators describing many physical situations. We present a rigorous result ensuring the

boundedness for a class of generalized classical oscillators, characterized by symmetric potentials with only one equilibrium point. The key elements turn out to be the oscillating nature of the solutions and the presence of an autonomous part in the potential, diverging *more than quadratically* with the coordinate. [Phys. Rev. E **62**, 3039 (2000)]