

Koronovskii, A. A.; Maksimenko, V. A.; Moskalenko, O. I.; Khramov, A. E.
Choosing the state of a spatially distributed system in calculating a spectrum of Lyapunov exponents. (English. Russian original) [Zbl 1253.78014](#)
Bull. Russ. Acad. Sci., Phys. 75, No. 12, 1585-1588 (2011); translation from *Izv. Ross. Akad. Nauk, Ser. Fiz.* 75, No. 12, 1687-1690 (2011).

Summary: The problem of choosing the set of parameters that determine the state of a spatially distributed system when calculating a spectrum of Lyapunov exponents is considered. The possibility of reducing the number of necessary quantities due to the features of the employed mathematical model is discussed. The proposed method is successfully applied to a hydrodynamic model of a Piers diode.

MSC:

78A35 Motion of charged particles

37M25 Computational methods for ergodic theory (approximation of invariant measures, computation of Lyapunov exponents, entropy, etc.)

Cited in **10** Documents

Full Text: [DOI](#)

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