

Condensed Matter > Statistical Mechanics

Comment on "Time-averaged properties of unstable periodic orbits and chaotic orbits in ordinary differential equation systems"

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The recent paper claims that mean characteristics of chaotic orbits differ from the corresponding values averaged over the set of unstable periodic orbits, embedded in the chaotic attractor. We demonstrate that the alleged discrepancy is an artifact of the improper averaging: Since the natural measure is non-uniformly distributed over the attractor, different periodic orbits make different contributions into the time averages. As soon as the corresponding weights are accounted for, the discrepancy disappears.

Comments: Comment, 2 pages, 1 figure

Subjects: **Statistical Mechanics (cond-mat.stat-mech)**; Chaotic Dynamics (nlin.CD)

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