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# Deterministic Chaos Theory: Replications of Periodic Windows

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In recent years, a vast quantity of work has been done analysing nonlinear systems in two-dimensional parameter spaces. As a result, noticeable periodic windows, such as Arnold tongues and shrimp-shaped structures, have been identified embedded in the chaotic regions for a large diversity of non-linear systems. Several interesting properties of dynamics are associated with periodic windows, whose distributions appear highly organised in parameter space, like period-adding and Fibonacci-type sequences. In this paper, we report replication of shrimp-shaped structures for a Duffing oscillator by using control strategies to suppress chaotic behaviours.

## Tipo de Apresentação

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