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Title: Targeting Temporal Patterns in Time-Delay Chaotic Systems Authors: Sinha, Sudeshna (/jspui/browse?type=author&value=Sinha%2C+Sudeshna) Keywords: Chaos control Time delay system Chaos clipping Delay circuit Issue Date: Publisher: World Scientific Publishing Citation: International Journal of Bifurcation and Chaos, 24(2). Abstract: We report a control of chaos in time-delayed nonlinear systems, which constitute an important class of infinite-dimensional systems. Our method simply entails clipping of a single state variable of the chaotic system to a threshold value. The method is easier to implement since only a single variable is needed to be accessible for measurement and resetting. A variation of the threshold level yields a wide variety of regular temporal patterns. The important advantage of this method is that it generates a look-up table, which can be readily used to obtain a desired behavior by just setting the corresponding threshold value. Such a feature makes this control of chaotic systems attractive for potential applications. We physically verify the technique in an electronic experiment.

Description: Only IISERM authors are available in the record.

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