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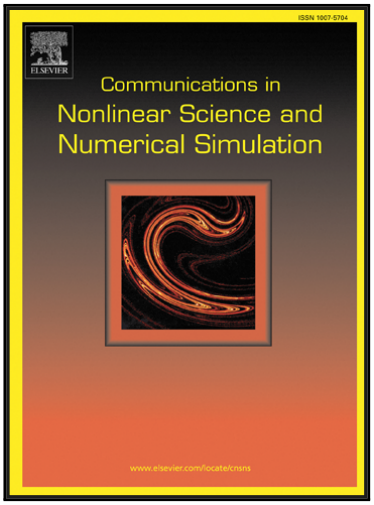

Emergence of death islands in fractional-order oscillators via delayed coupling

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Highlights

- The fractional-order derivative is introduced in delay-coupled oscillators to induce the oscillation quenching dynamics for the first time.
- The interplay between the fractional-order derivative and the coupling delay causes the massive emergence of death islands composed of alternating odd death islands and even death islands.
- The number of death islands is analytically derived, which can well be controlled by the fractional-order derivative and the natural frequency.

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