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Editors
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Dear Editors,

Please consider the enclosed manuscript entitled **"Delay-Induced Mode Selection in Circulating Feedback Systems"** for publication in *Chaos*.

This work investigates how finite circulation delays in closed feedback loops enforce discrete, stability-selected phase-locked states in a minimal classical framework. Using a reduced phase-oscillator description, we show that **temporal nonlocality alone—without spatial boundary conditions or microscopic quantization—leads to spectral discreteness through dynamical stability constraints**.

For transparency, a separate manuscript by the same author is currently under review at *AIP Advances*, titled: **"Delay-Induced Pattern Formation as a Route to Mode Discreteness in Nonlinear Ring Systems."** The two submissions are scientifically distinct and address different regimes:

- The *prior manuscript* explores delay-induced pattern formation in nonlinear rings, where spatial degrees of freedom organize into discrete extended modes.
- The *present manuscript* eliminates spatial structure entirely and demonstrates that mode discreteness emerges intrinsically from circulation delay via stability filtering in a reduced model.

Key differentiators of the current work include:

- A focus on **effective constitutive modeling**, where delay acts as a macroscopic ingredient;
- **Stability-induced discreteness**, rather than emergent spatial patterns;
- Conceptual parallels to **homogenization theory** and **bianisotropic effective media**, in which hidden nonlocality gives rise to emergent macroscopic structure.

There is no overlap in figures, derivations, or text between the two manuscripts. Each is designed to stand independently for readers interested in complementary aspects of delay-induced phenomena.

We believe this contribution will be of particular interest to *Chaos* readers working on delayed feedback, nonlinear oscillators, phase-locking, and effective nonlocal dynamics.

Thank you for your time and consideration.

Sincerely,

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