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February 23, 2026

Editorial Office,
Journal of Fluid Mechanics

Dear Editor,

Please find enclosed the manuscript titled, “A model for limit-cycle switching in open cavity flow”, that the author would like to submit as a research article to *JFM Rapids*.

The manuscript presents a reduced mathematical model for the open cavity flow, derived using the center manifold theory, which exhibits many of the qualitative features of the flow dynamics observed in the case - from the exchange of stability of the limit cycles to the existence of quasi-periodic edge states.

To the best of the author’s knowledge the study is the first attempt at simultaneous modeling of the emergence of the two distinct limit-cycles in the flow case and, the analysis presented will be of great interest to researchers in the field of hydrodynamics, in particular to those working on bifurcation phenomena.

The author hopes that the Editor finds the manuscript suitable for publication in *JFM Rapids*.

Best Regards

Prabal S. Negi