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CORRIGENDUM

Nonlinear dynamics in Langmuir circulations and in thermosolutal convection

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A systematic error has been discovered in the numerical code used to integrate the fully nonlinear partial differential equations in the above paper. Those parts of the paper that report results of nonlinear numerical simulations are therefore incorrect. To the best of our knowledge, the remainder of the paper, including the linear stability calculations, is correct. The erroneous results will be corrected in two papers by S. M. Cox, S. Leibovich, I. M. Moroz & A. Tandon (1992*a*,*b*).

Very briefly, the results in error are as follows. For periodic boundary conditions the Nusselt numbers are grossly overestimated. There is only one type of travelling wave solution, which has staggered cell centres. There are no co-existing standing and travelling waves.

For constrained boundary conditions the steady states are the same as those for the periodic case. Standing waves approach heteroclinicity at values of R greater than those reported in this paper. There is no complicated dynamics associated with multiple bifurcations involving two spatial modes. In particular, although periodic and quasi-periodic motions are found at $S = 1089$, no quasi-periodic motions, frequency-locked motions or intermittent transitions to chaos have been found for $S = 3000$.

REFERENCES

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