

Erratum: "Cellular convection in a chamber with a warm surface raft" [Phys. Fluids 23, 104103 (2011)]

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The article¹ stated that raft velocity was set equal to fluid velocity at the center of the raft for all calculations. Instead, it was recently found that the velocity of the raft in our calculations was equal to 1/32 times the velocity of the fluid at the center of the raft.

The below changes correct the text:

Introduction paragraph 5, line 15 (6 lines up from the bottom) insert "divided by 32" after the word "center."

In the paragraph following the paragraph containing Eq. (2c), insert in the first line after "speed of flow" the three words "divided by 32." In the third line insert after "u(c,0)" the three characters "/32."

Two lines above Eq. (3) there is an equation. Insert after "a" in this equation the three characters "/32." In the second line of Eq. (3), insert after "+a" the three characters "/32."

In the DISCUSSION section, 7 lines above the CONCLUSION section, insert after the parenthesis: "and coupling between raft and fluid allows slip."

At 4 lines above the CONCLUSION section, insert the sentence: "Therefore, runs with the raft velocity set equal to fluid velocity at the center of the raft need to be done."

This ends the corrections. New calculations have been made with the raft velocity set equal to the velocity of the fluid at the raft center. Quantitative differences with Figures 1, 2, 4, and 5 are small but differences are large for Figures 6 and 7. Notably, raft motion exists in the full range of Rayleigh numbers. (New counterparts for Figures 5–7 are available from corresponding author J.A.W.) Comparisons for the remaining figures have not yet been calculated.

¹J. A. Whitehead, E. Shea, and M. D. Behn, Phys. Fluids 23, 104103 (2011).

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