Response to "Comment on 'The effect of rotation on the Rayleigh-Bénard stability threshold' " [Phys. Fluids 25, 059101 (2013)]

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I would like to thank Dr. Dawes's for his useful comments[1] on my paper[2] with which I am in total agreement. As he points out, and as is stated in the paper itself[2] the error of the approximate solution presented there can be as large as 15% in certain parameter ranges.

The point of the paper is not the superiority of the numerical values which, these days, are readily made as accurate as one may wish by the use of appropriate software. Rather, this paper and the other one to which Dr. Dawes refers[3] demonstrate an alternative way to approach problems of this type which is, first, of interest in itself and, second, more flexible than existing ones. The latter feature is demonstrated by its ability to produce results for the case of finite plate thermal conductivity and for modes antisymmetric about the mid-plane of the system, for neither of which exact (or better) results seem to be available. While a claim of great accuracy for these approximations would be misplaced, the parameter dependency that they exhibit is a robust feature which can be explored in a fairly straightforward manner on their basis.

[1] J. H. P. Dawes, "Comment on 'The effect of rotation on the Rayleigh-Bénard stability threshold' [Phys. Fluids **24**, 114101 (2012)]," Phys. Fluids **25**, 059101 (2013).
[2] A. Prosperetti, "The effect of rotation on the Rayleigh-Bénard stability threshold," Phys. Fluids **24**, 114101 (2012).
[3] A. Prosperetti, "A simple analytic approximation to the Rayleigh-Bénard stability threshold," Phys. Fluids **23**, 124101 (2011).

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