

Interactive comment on “Analytic Solutions for Long’s Equation and its Generalization” by Mayer Humi

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Reply to Anonymous Referee #2

September 20, 2017

1. The transformations on Long's equation which are introduced in this paper were "inspired" by the transformations which are used to linearize Riccati and Burger's equations (log-type transformation). From a physical point of view the motivation comes from the desire to replace the nonlinearities due to the derivatives of η in (??) by expressions that correspond to η itself. This replacement will enable us to make approximations which are based on physical insights.

2. As to the figures: They demonstrate the change in the gravity wave amplitude with height and the effect that non-isothermal flow can have on this wave.

I revised the paper to reflect these changes (in red)

Side Remarks

1. I added a reference to Dubreil-Jacotin paper.

2. Although the restriction to 2D is obvious I added a remark to this effect in the introduction and added a reference to the paper by Akylas & Davis (2001) (The reference to Yih is already there).

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