Interactive comment on "Baroclinic and barotropic instabilities in planetary atmospheres - energetics, equilibration and adjustment" *by* Peter Read et al.

Anonymous Referee #1

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Fig 7. from Young (2014) is incorrect for FZ: 2.08 to be replaced by 1.69

Fig.8. Please define the Peclet number Pe (Nu-1 ?)

3.1 and Fig.9. Saturn and Jupiter do have super-rotation in the equator (and multiple jets, Note that Saturn "S" is missing in Fig.9) in contradiction with Fig.9. This part seems to suggest that only large Rossby numbers yield super-rotation: this is not what is observed. It might be the case that the authors mean "global (?)" super-rotation and arguing that one is within the PUMA realm but a comment on this would be very welcome.

Fig 12. The arrow thicknesses must be consistent with their numerical values. The convention of using negative values is also misleading. Why not use positive values

provided the arrows are in the right direction ?

12(a) NCEP data are used here: plz correct -0.48 to 0.48 since the arrow direction is in the opposite direction. Note that one should look at Boer and Lambert instead of Fig. 1 of Tabataba-Vakili et al. (pls correct text as well).

12(b) pls refer explicitly to Fig.12 (b) in 4.1.2

12(c): correct to positive values like in Lee and Richardson.

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