Follow-up Review of Baikhadzhaev et al.

This revised draft has addressed my issue on clarifying that the paper does indeed focus on these deep and shallow circulation branches. It is clearer now that they wanted to determine the contributions of different atmospheric waves on the structure and variabilities of these branches. As for my concern on the classification of the atmospheric waves:

1. I mentioned Kelvin waves as an example because I initially thought your paper was interested in finding new circulation branches and not just these mid-latitude branches. Now that it is clear that the branches of interest are these deep and shallow branches, I agree that equatorial Kelvin waves are definitely not relevant to the analysis.
2. I understand the need to take an approach that is not too computationally heavy. But this approach to acknowledge the importance of waves with wavenumber greater than 4 and even up to wavenumber 180 is still computationally heavy while also not very insightful. Using figure 4 as an example, it is easy to look at the plot and think that wave 3 to 6 clearly induce something that is separate from waves 1 to 2. But then, one still has to ask, what is wave 3? Wave 6? Simply saying that they are mesoscale waves is not enough. My new suggested revision is to perhaps separate the waves into wavenumbers 1 – 2 VS "higher order" waves. From your results, it is clear that wavenumber 1 to 2 clearly drives the deeper branch. I know wavenumbers 3-4 is included in the calculations but again, what are these waves? At higher altitudes, we care about wavenumber 4 planetary-scale waves but I don't think this is recognized in the stratosphere. I also see that "higher order" waves are driving the shallow branch. I'd leave it at that and not over-analyze any specific wavenumber unless you are willing to define that these specific waves are; that is, what's their common phase-speed, propagation of direction, etc.

In summary, the conclusions showing that the deeper branch seems primarily driven by planetary-scale waves while the shallow branch is primarily driven by non-planetary-scales waves is worth publishing. I would just remove any specific investigation on these "higher order" waves unless you are willing to specifically introduce these waves and really prove their Physics or physical significance.