

Weather Clim. Dynam. Discuss., referee comment RC1  
<https://doi.org/10.5194/wcd-2022-43-RC1>, 2022  
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## **Comment on wcd-2022-43**

Anonymous Referee #1

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Referee comment on "The role of Rossby waves in polar weather and climate" by Tim Woollings et al., Weather Clim. Dynam. Discuss.,  
<https://doi.org/10.5194/wcd-2022-43-RC1>, 2022

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This is an important contribution that notes specific theory and conclusions regarding Arctic atmospheric dynamics

Some are more obvious like weakening Rossby waves, and some are more interesting like the preference for very low wave numbers and

importance of local long wave radiation.

1. The title and conclusions are about the Arctic. Yet some of the motivation is from Arctic-midlatitude linkages that are not really discussed

I would cut back on this connection.

2. There is five pages of background theory. This could be more streamlined removing secondary comments. Move some more to Appendix? Focus on what is important for conclusions. The manuscript needs a better flow and shortening.

3. Paper is well written. Anticipated conclusions are mentioned at the beginning of each section before going into details.

4 Not sure all of these authors made substantial contributions, but leave this to main author and editor.

