

EGU2020-13463

<https://doi.org/10.5194/egusphere-egu2020-13463>

EGU General Assembly 2020

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## Impact of Rossby waves on Northern-Hemisphere continental climate

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Mid-latitude continental weather and climate are strongly affected by the atmospheric circulation patterns such as Rossby waves and cyclones. For instance these patterns may lead to warm- and humid-air advection over western part of the continents in winter and cold-air advection in these regions during summer. By applying a newly developed method for splitting the atmospheric latent and dry-static energy transport into waves, hereby decomposing the energy transport into parts accomplished by e.g. Rossby waves and synoptic-scale weather systems, the effect of different atmospheric circulation patterns on Northern-Hemisphere continental climate is investigated.

Climate change and the associated Arctic temperature amplification may impact mid-latitude atmospheric circulation. Here we investigate the effect on Northern-Hemisphere continental climate from changes over recent decades in the atmospheric circulation patterns using the above-mentioned method.