

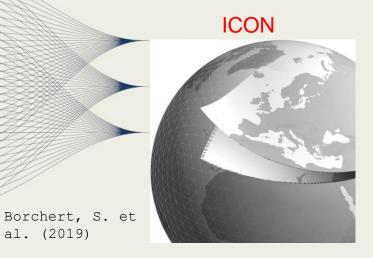


Studying infrasound propagation in the middle atmosphere with the upperatmosphere model UA-ICON: parameterisation and characterisation of gravity waves



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- Our poster is about the effects of gravity waves (GW) and upper atmospheric models on infrasound propagation.
- GWs have an import impact on the background temperature and wind, which impact infrasound propagation. In addition, small scale GW perturbations can cause partial reflections that increase infrasound energy in shadow zones.
- We applied a 3D transient GW model (MSGWaM) to the upper atmosphere version of the ICON model.
- We found that including these GWs in the model improved the waveform and source localisation estimations.

Hukkakero at I37NO - IFS 08/18/23 12h Ratio of Effective Speed of Sound 1.75 95th/5th percentile 140 Observations IFS 1.50 120 1.25 100 Pressure (AU) 0.75 Height (km) 80 60 0.50 40 0.25 20 0.00 2.5 ceff Ratio





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