

Tropospheric moisture transport pathways and stable water isotopes over the eastern subtropical North Atlantic

COSMO User Workshop

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Fabienne Dahinden

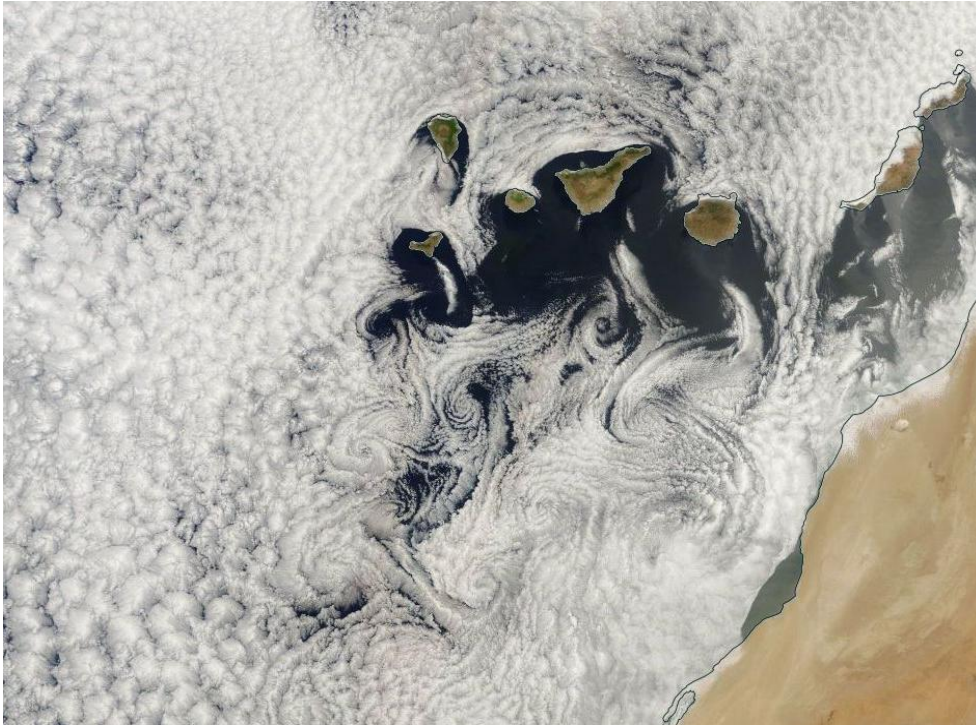
Dr. Stephan Pfahl

Dr. Franziska Aemisegger

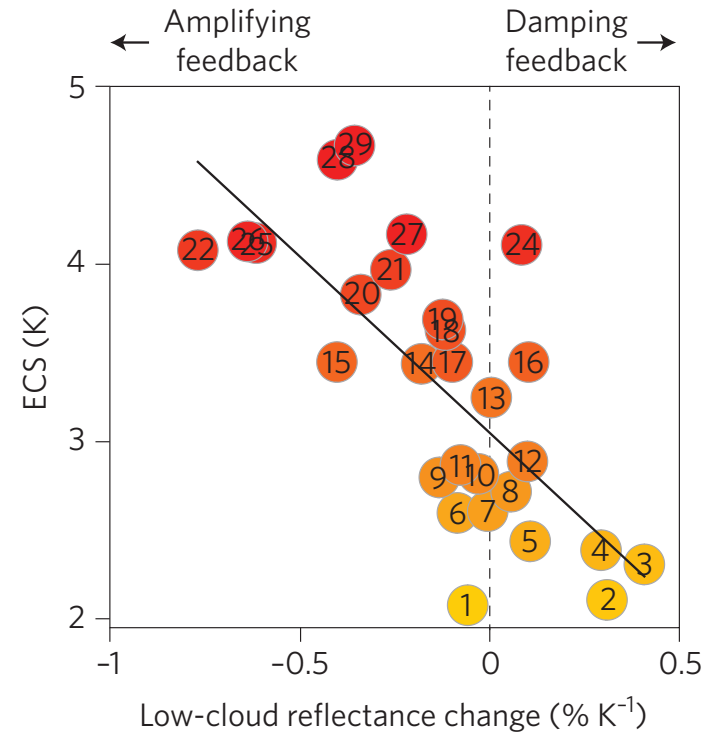
Prof. Heini Wernli

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Response of low clouds to global warming remains greatest source of uncertainty in climate projections



<https://worldview.earthdata.nasa.gov>



Schneider et al. 2017

Research goals

- Enhance understanding of tropospheric moisture pathways over eastern subtropical North Atlantic
- Identify relevant processes for low cloud formation
- Evaluate and constrain representation of related atmospheric processes in COSMO

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Investigate whether isotopes provide additional constraints on the model parameterization of specific atmospheric processes

COSMOiso δD cross sections: Enriched air over Africa moves over the subtropical North Atlantic and pushes away depleted air

