



Updates from the soil evaporation JPEG

Eleanor Blyth, Eleanor Burke, Sarah Chadburn, Doug Clark, John Edwards, Anna Harper, Patrick McGuire, Noah Smith, Chris Taylor, **Anne Verhoef**, Murilo Vianna, Karina Williams, Lucy Willows

Report to JULES annual meeting 2021



Soil evaporation JPEG

- ▶ Led by Anne Verhoef
- ▶ Aims to improve the evaporation from soil in JULES
- ▶ See her slides from last year on
<https://code.metoffice.gov.uk/trac/jules/wiki/JPEGSoilEvaporation>



Updates

- ▶ Preliminary investigation into how Or and Lehmann approach could be implemented into JULES.
- ▶ New options added to JULES.
- ▶ Starting to compile a list of datasets for evaluation.



New options added to JULES

JULES ticket 1093:

- ▶ **Adding in a PFT factor to multiply soil conductance under canopy (`gsoil_f_io`).** Allows the user to modify the soil evaporation under different PFT canopies.
- ▶ **Adding a flag to limit `gsoil` above the critical point (`l_limit_gsoil`),** suggested by Sarah Chadburn. It mimics stage I soil evaporation and improves the modelling of permafrost sites. May cause problems simulating rapid drying cycles in the Sahel (Chris Taylor).