

## Sval\_Imp: radiation procedure for downscaling radiation following the TopoSCALE method by Fiddes&Gruber (2014)

Fiddes, J. and Gruber, S.: TopoSCALE v.1.0: downscaling gridded climate data in complex terrain, *Geoscientific Model Development*, 7, 387–405, <https://doi.org/10.5194/gmd-7-387-2014>, 2014.

### Short usage description.

Thomas Vikhamar Schuler, Oslo Mar 2020

Contact: [t.v.schuler@geo.uio.no](mailto:t.v.schuler@geo.uio.no)

#### Requires:

M\_map: A mapping package for Matlab

<https://www.eoas.ubc.ca/~rich/map.html>

### File overview

ERAI_SW_to_Sval1km.m	Main script to be executed
doy.m	Function to calculate day of year, based on calendar date
interpERA2SVAL.m	Tool to interpolate coarse-scaled ERA fields to high-res grid
interpERA2SVAL_simple.m	Tool to interpolate coarse-scaled ERA fields to high-res grid, based on LAT LON
sort_radiation_ERAIint.m	Preprocessing script, converts accumulated radiation fluxes to 6hourly mean flux
sort_T2_T2dew_ERAIint.m	Preprocessing script, converts T2 and T2dew to T2 and pvap (vapor pressure), required by main script.