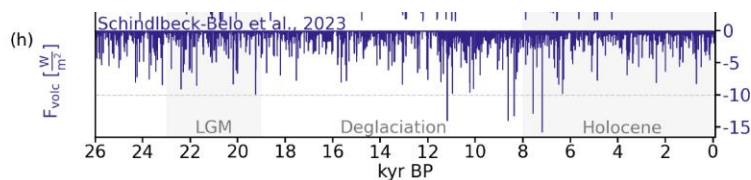


**Figure 6.** Comparing tephra and ice-core-based VSSI time series over the Holocene. (a) VSSI time series derived from tephra records. (b) HolVol ice-core-based VSSI time series (Sigl et al., 2022). Gray shading shows the period used to base eruption statistics for the synthetic time series. (from Schindlbeck-Belo 2024)

*“We emphasize that users wanting the most accurate reconstruction of VSSI over the last glacial cycle could consider using a merged product, for example by concatenating the HolVol ice core time series with PalVol for the period, which occurs before the beginning of HolVol.”* (from Schindlbeck-Belo 2024)



**Figure 1.** Climate responses and external forcing during the past 26k years: (a) global mean temperature anomaly (w.r.t. 1960-1989) as simulated by MPI-ESM, captured in ice cores from Antarctica (EPICA Dome C, Jouzel et al., 2007) and Greenland (NGRIP, Andersen et al., 2004) and reconstructed in the LGM reanalysis (Osman et al., 2021), (b) global mean precipitation as simulated by the Earth System Model MPI-ESM, (c) sea level change (Grant et al., 2012) (d) atmospheric CO<sub>2</sub> (Köhler et al., 2017) and (e) CH<sub>4</sub> levels (Köhler et al., 2017), (f) daily insolation at 65°N and 65°S at the summer solstice (Huybers and Eisenman, 2006), (g) solar constant from one ensemble member generated as surrogate data based on Steinhilber et al. (2009) following Ellerhoff and Rehfeld (2021) (comparison with Steinhilber et al. (2009) in Fig. S2 in the Supplement), and (h) volcanic forcing (TephraSynthIce | Schindlbeck-Belo et al., 2023).