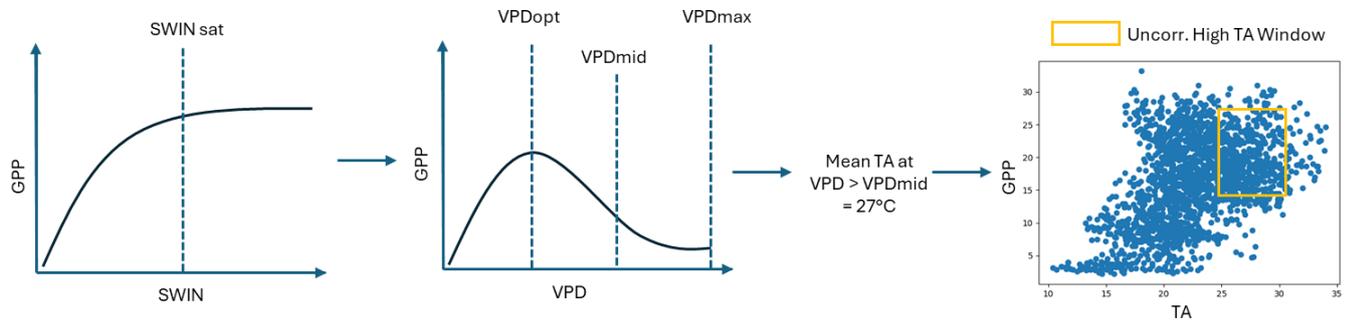# Supplement Material

Figure S1: Conceptual flow chart of the procedure to evaluate the influence of VPD on fluxes while controlling for correlated effects of short-wave incoming radiation (SWIN) and air temperature (TA).
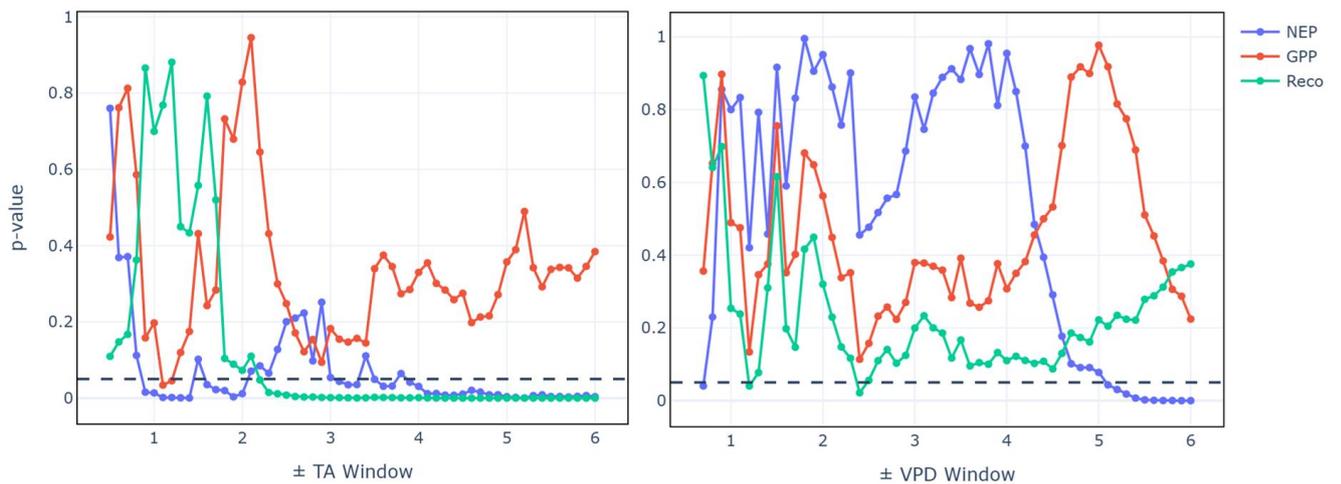

Figure S2: Sizes of the windows of VPD and TA around the chosen midpoint alongside p values for linear regression for the three variables NEE, GPP, Reco and ET with VPD or TA in that range. The dashed line denotes a p-value of 0.05.
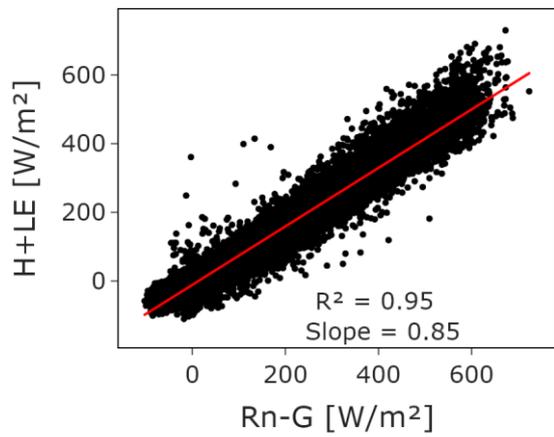
Figure S3: Energy balance closure determined by the slope between half-hourly measured and non-gap filled heat fluxes and radiation balance minus ground heat flux in DE-Amv, during the study period (2023–202).
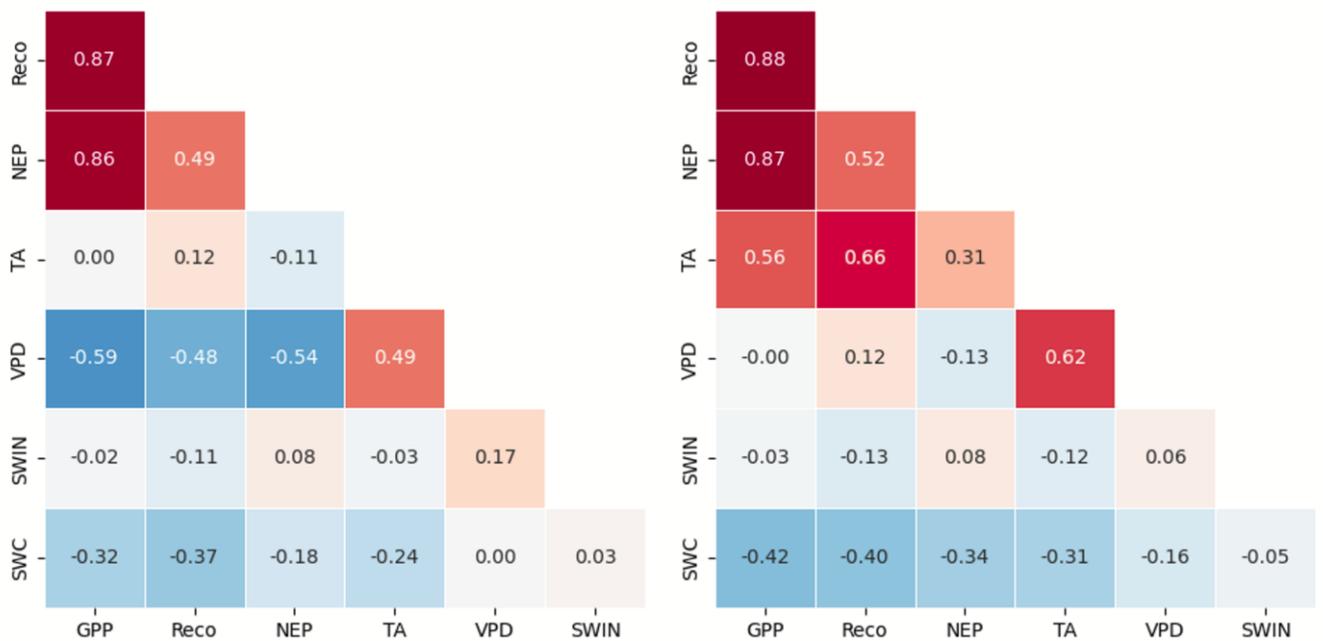

Figure S4: Correlation matrix of fluxes (GPP, Reco and NEP) and meteorological drivers SWC, TA, VPD and SWIN after the data was controlled to only include radiation saturated GPP data and was cleaned for VPD correlation (a) or TA correlation (b).