



Figure 1: (a-d) Average aerosol extinction, relative humidity ( $RH$ ), specific humidity ( $q_v$ ) and potential temperature ( $\theta$ ) profiles for the smoke, non-smoke and pristine cases during JJA and SO using the values extracted from CALIPSO Aerosol Profile data product (MERRA-2). (e-f) Same variables, but extracted from the ECMWF-aux files from CloudSat, except for the aerosol extinction which comes from CALIPSO.