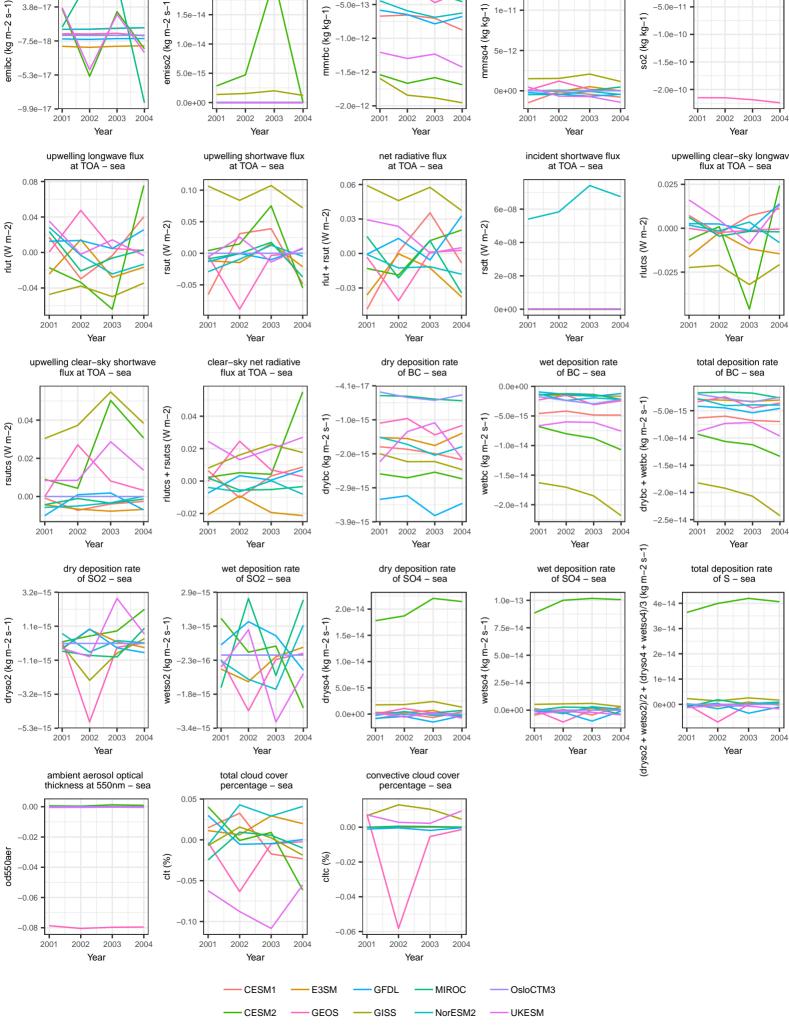
bc-no-season: absolute difference surface flux of SO2 – sea surface concentration of SO4 – sea surface concentration of SO2 – sea surface concentration 0.0e+00 mmrso4 (kg kg-1) mmrbc (kg kg-1) (kg kg-1) emiso2 (kg m-2 -1.0e-12 so2 -1.5e-10 5.0e-15 0e+00 0.0e+00-2.0e-2001 2002 2003 2001 2002 2003 2001 2002 2003 2001 2002 2003 Year Year Year Year net radiative flux at TOA – sea upwelling shortwave flux at TOA – sea incident shortwave flux at TOA – sea upwelling clear-sky longwave flux at TOA - sea 0.025 0.06 rlut + rsut (W m-2) 0.03 0.05 rlutes (W m-2) rsdt (W m-2) 0.000 4e-08 0.00 0.00 -0.025 -0.05 -0.03 2001 2003 2001 2003 2001 2003 2001 2002 2003 Year Year Year Year clear-sky net radiative dry deposition rate wet deposition rate total deposition rate flux at TOA - sea of BC - sea of BC - sea of BC - sea 0.0e + 0.0(kg m-2 s-1 0.04 drybc (kg m-2 s-1) vetbc (kg m-2 0.02 wetbc (0.00 -0.02 2001 2003 2001 2003 2001 2002 2003 2001 2002 2003 Year Year Year Year wetso4)/3 (kg m-2 s-1) wet deposition rate dry deposition rate wet deposition rate total deposition rate of SO2 - sea of SO4 - sea of SO4 - sea of S - sea 2.9e-15 dryso4 (kg m-2 s-1) (kg m-2 s-1 1.3e-15 (dryso4 + 5.0e-14 vetso4 2.5e-14 (dryso2 + wetso2)/2 0e+002001 2002 2003 2001 2002 2003 2001 2002 2003 2002 2003 Year Year convective cloud cover total cloud cover percentage - sea percentage - sea 0.05 0.00 0.00 -0.02



surface flux of BC – sea