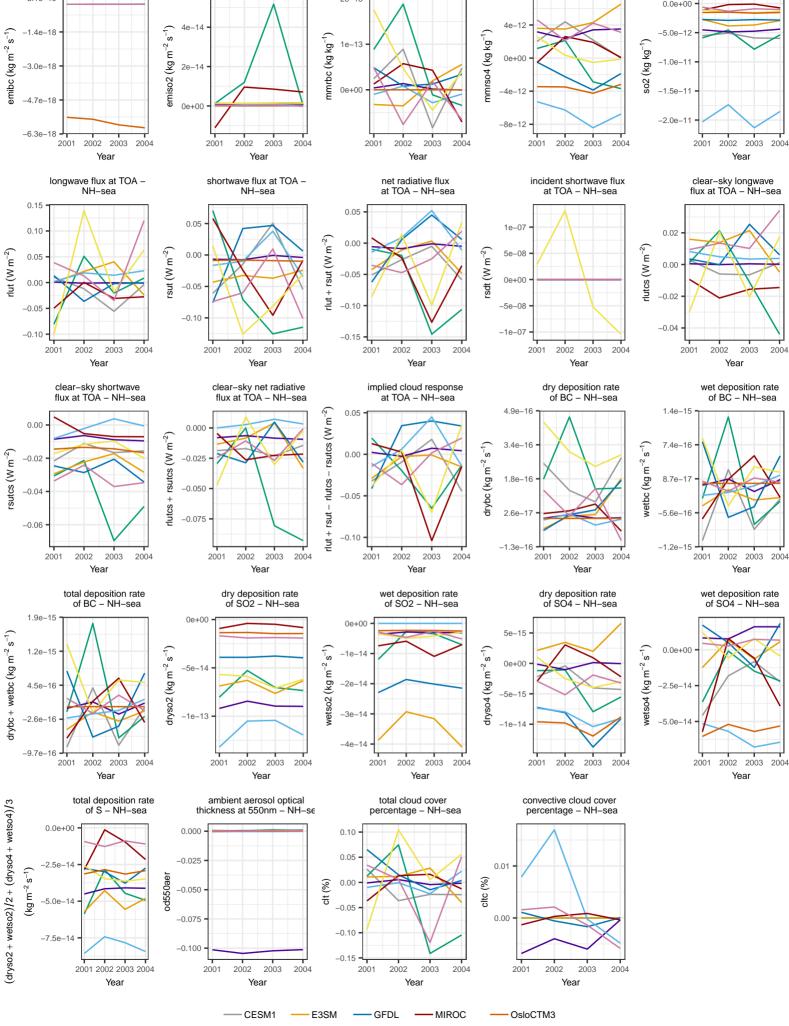
## so2-no-season: absolute difference surface flux of SO2 – NH-sea surface concentration of BC – NH–sea surface concentration of SO4 – NH–sea surface concentration of SO2 – NH–sea 0.0e+00 nmrbc (kg kg<sup>-1</sup> mmrso4 (kg kg¯ $m so2~(kg~kg^{-1})$ 0e+00 -2.0e-1 \_8e\_12 2003 2004 2001 2002 2003 2001 2003 2001 2002 2003 2001 2002 Year Year Year Year net radiative flux at TOA – NH–sea incident shortwave flux at TOA – NH–sea clear-sky longwave flux at TOA - NH-sea shortwave flux at TOA -NH-sea 0.05 1e-07 0.02 rlut + rsut $(W m^{-2})$ 0.00 rlutcs (W m<sup>-2</sup>) $rsdt (W m^{-2})$ 0.00 -0.05 0e+00 -0.02 -0.10 -0.04 -1e-07 -0.15 2001 2003 2002 2003 2001 2002 2003 2001 2002 2003 Year Year Year Year dry deposition rate of BC – NH–sea clear-sky net radiative implied cloud response wet deposition rate flux at TOA - NH-sea at TOA - NH-sea of BC - NH-sea 4.9e-16 rlut + rsut – rlutcs – rsutcs (W m $^{-2}$ ) 0.05 1.4e-15 3.4e-16 $drybc (kg m^{-2} s^{-1})$ wetbc $(kg m^{-2} s^{-1})$ 7.4e - 160.00 1.8e-16 8.7e-17 -0.05 2001 2002 2003 2001 2003 2001 2002 2003 2001 2003 Year Year Year Year dry deposition rate of SO4 – NH–sea wet deposition rate of SO4 – NH–sea dry deposition rate wet deposition rate of SO2 - NH-sea of SO2 - NH-sea 5e-15 0.0e+00 wetso2 $(kg m^{-2} s^{-1})$ $dryso4 (kg m^{-2} s^{-1})$ wetso4 $(kg m^{-2} s^{-1}$ 2001 2002 2003 2004 2001 2002 2003 2004 2001 2002 2003 2001 2002 2003 Year Year Year ambient aerosol optical total cloud cover convective cloud cover thickness at 550nm - NH-se percentage - NH-sea percentage - NH-sea 0.10 0.05



CESM2

**GEOS** 

**GISS** 

NorESM2

**UKESM** 

surface flux of BC -

NH-sea