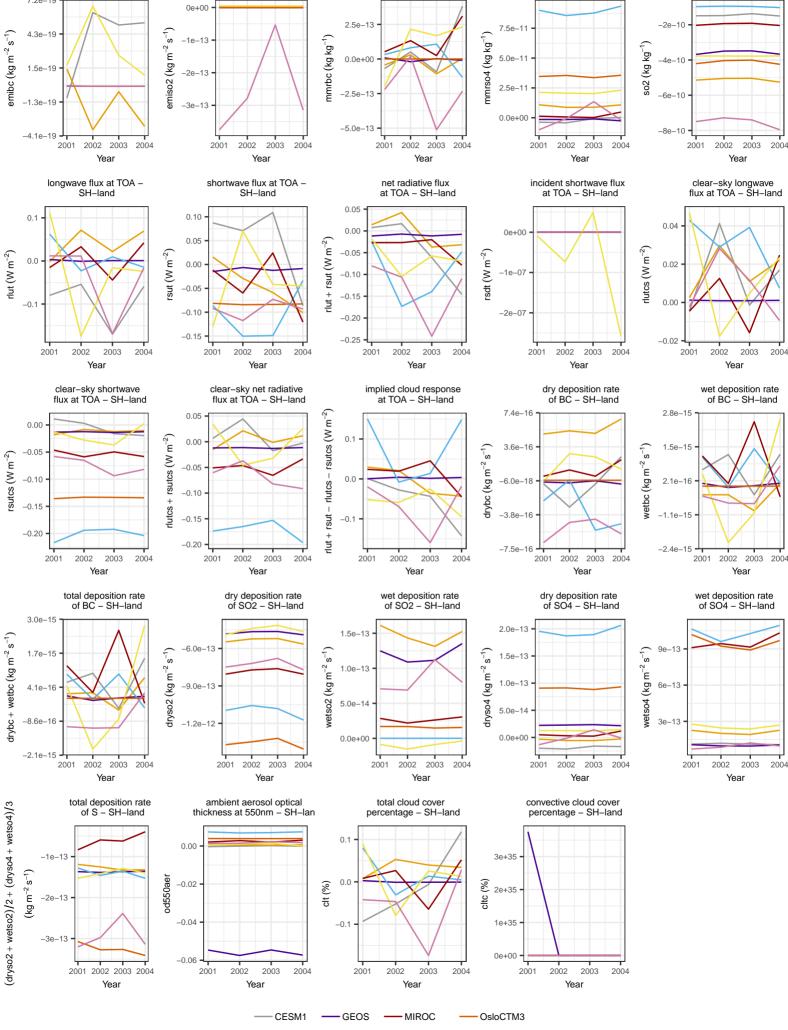
so2-at-height: absolute difference surface flux of SO2 – SH–land surface concentration of SO4 – SH–land surface concentration surface concentration of SO2 – SH–land 2.5e-13 -2e-10 mmrso4 (kg kg⁻ nmrbc (kg kg⁻ $m so2~(kg~kg^{-1}$ 0.0e + 0.05.0e-11 2.5e-11 0.0e+00 2001 2002 2003 2001 2002 2003 2001 2002 2003 2001 2002 2003 Year Year Year Year shortwave flux at TOA -SH-land net radiative flux at TOA – SH–land incident shortwave flux at TOA – SH–land clear-sky longwave flux at TOA - SH-land 0.05 0.04 0.00 rlut + rsut $(W m^{-2})$ rlutcs $(W m^{-2})$ -0.05 $rsdt (W m^{-2})$ 0.02 1e-07 -0.10 -0.15 0.00 -2e-07 -0.20 -0.25 2003 2001 2003 2001 2002 2003 2001 2003 Year Year Year Year dry deposition rate of BC – SH–land wet deposition rate of BC – SH-land clear-sky net radiative implied cloud response flux at TOA - SH-land at TOA - SH-land 7.4e-16 2.8e-15 rlutcs - rsutcs (W m⁻²) 0.1 3.6e-16 $drybc (kg m^{-2} s^{-1})$ wetbc (kg m⁻² s⁻¹) 1.5e-15 0.0 -6.0e-18 rlut + rsut --3 8e-16 -0.1 2001 2003 2001 2003 2001 2003 2001 2003 Year Year Year Year dry deposition rate of SO4 – SH–land wet deposition rate of SO4 – SH–land dry deposition rate wet deposition rate of SO2 - SH-land of SO2 - SH-land wetso2 $(kg m^{-2} s^{-1})$ $dryso4 (kg m^{-2} s^{-1})$ wetso4 $(kg m^{-2} s^{-1})$ 1.0e-13 1.0e-13 0.0e+00 0.0e+00 2001 2002 2003 2001 2002 2003 2004 2001 2002 2003 2001 2002 2003 Year Year ambient aerosol optical total cloud cover convective cloud cover thickness at 550nm percentage - SH-land percentage - SH-land 0.1



E3SM

GISS

NorESM2

UKESM

surface flux of BC -

SH-land