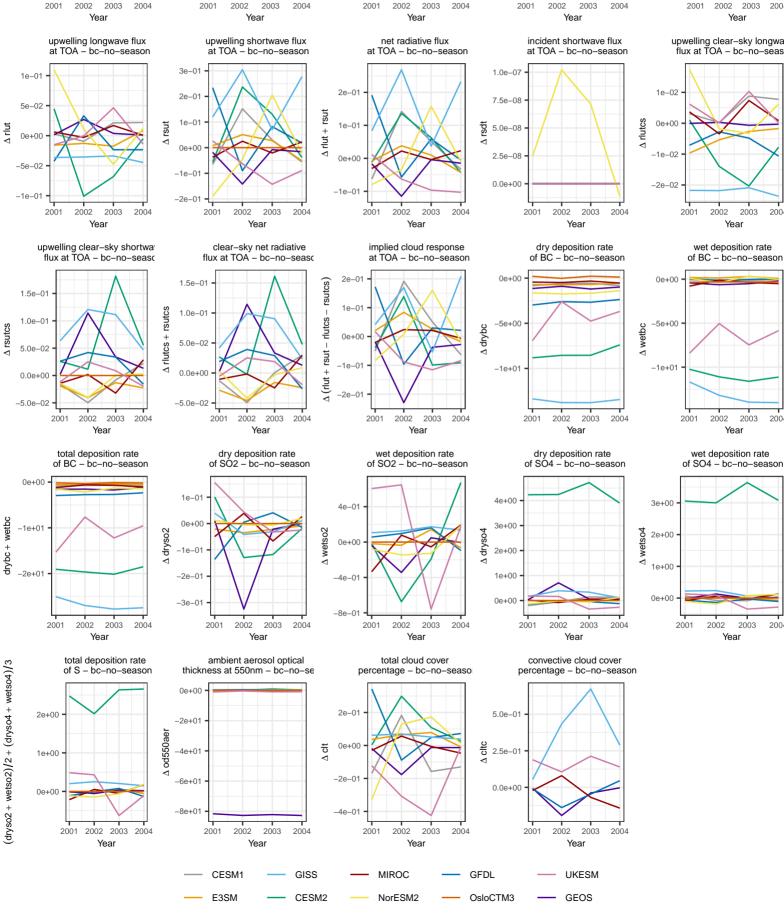
NH-atlantic: absolute difference surface flux of SO2 – bc–no–season surface flux of BC – bc–no–season surface concentration surface concentration of SO4 – bc–no–season surface concentration of SO2 – bc–no–season of BC - bc-no-season 3e+00 0.0e+00 5e+00 0e+00 4e+00 -2.5e+01 2e+00 ∆ emiso2 -50+00 ∆ mmrbc mmrs -5.0e+01 2e+00 1e+00 _7 5e+01 0e+00 2002 2003 2003 2001 2002 2003 2002 2003 2001 2002 2003 2002 2001 2001 Year Year Year Year Year upwelling shortwave flux at TOA – bc–no–season upwelling clear-sky longwav flux at TOA - bc-no-seaso net radiative flux incident shortwave flux at TOA - bc-no-season at TOA - bc-no-season 3e-01 1.0e-07 2e-01 1e-02 2e-01 7 56-08 ∆ rlut + rsu¹ 1e-01 0e+00 ∆ rlutcs ∆ rsut 1e-01 0e+00 2.5e-08 -2e-02 2003 2003 2004 2001 2002 2003 2001 2002 2003 2004 2001 2002 2001 2002 2003 Year Year Year Year clear-sky net radiative implied cloud response dry deposition rate wet deposition rate flux at TOA - bc-no-seaso at TOA - bc-no-season of BC - bc-no-season of BC - bc-no-season 2e-01 0e+00 1.5e-01 rsutcs ∆ rlutcs + rsutcs 1.0e-01 rlut + rsut - rlutcs --5e+00 ∆ wetbc 0e+00 5 0e-02 -1e-01 -1e+01 -1e+01 0.0e+00 -2e-01 -5 0e-02 2002 2003 2001 2002 2003 2004 2001 2002 2003 2001 2002 2003 2001 2002 2003 Year Year Year Year Year dry deposition rate of SO4 – bc–no–season dry deposition rate wet deposition rate wet deposition rate of SO2 - bc-no-season of SO2 - bc-no-season of SO4 - bc-no-season 4e+00 3e+00 4e-01 0e+00 3e+00 ∆ wetso2 2e+00 ∆ dryso² 0e+00 1e+00 -01 1e+00 0e+00 0e+00 -8e-01 2003 2003 2003 2003 2003 2001 Year ambient aerosol optical total cloud cover convective cloud cover percentage - bc-no-seaso percentage - bc-no-season 0e+00 5.0e-01 -2e+01∆ od550ae 0e+00 -4e+01 2.5e-01 -6e+01 0.0e+00-8e+01



4e-01

2e-01

0e+00

-2e-01

∆ emibc