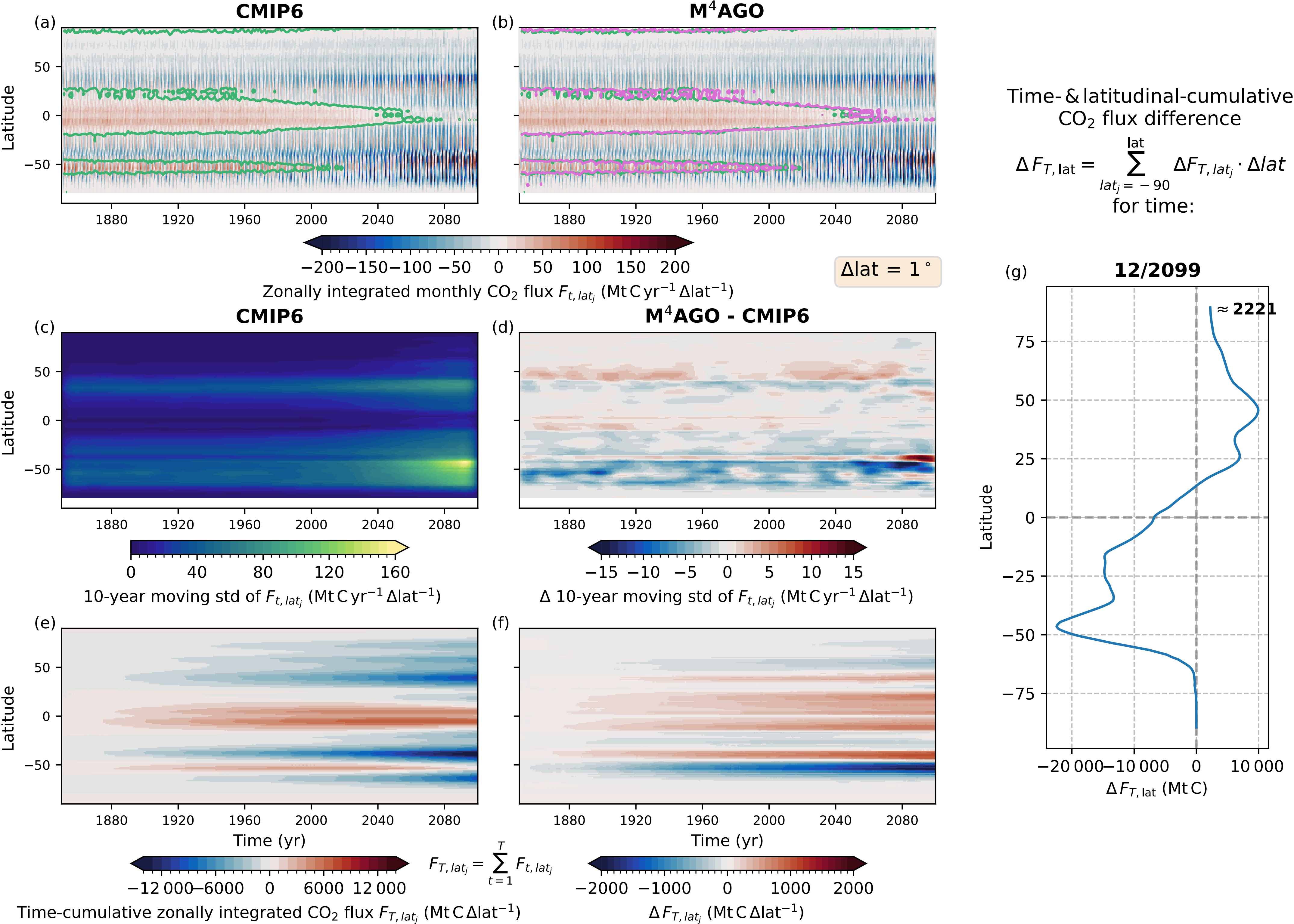

(a) CMIP6
(b) M^4AGO
Latitude
50
0
−50
1880 1920 1960 2000 2040 2080
−200 −150 −100 −50 0 50 100 150 200
Zonally integrated monthly CO_2 flux F_{t,lat_j} (Mt C yr^{-1} Δlat^{-1})
Δlat = 1°
(c) CMIP6
(d) M^4AGO - CMIP6
0 40 80 120 160
10-year moving std of F_{t,lat_j} (Mt C yr^{-1} Δlat^{-1})
−15 −10 −5 0 5 10 15
Δ 10-year moving std of F_{t,lat_j} (Mt C yr^{-1} Δlat^{-1})
(e)
(f)
Time (yr)
−12 000 −6000 0 6000 12 000
$F_{T,lat_j} = \sum_{t=1}^{T} F_{t,lat_j}$
Time-cumulative zonally integrated CO_2 flux F_{T,lat_j} (Mt C Δlat^{-1})
−2000 −1000 0 1000 2000
$\Delta F_{T,lat_j}$ (Mt C Δlat^{-1})
Time- & latitudinal-cumulative
CO_2 flux difference
$\Delta F_{T,\mathrm{lat}} = \sum_{lat_j=-90}^{\mathrm{lat}} \Delta F_{T,lat_j} \cdot \Delta lat$
for time:
(g) 12/2099
≈ 2221
75 50 25 0 −25 −50 −75
−20 000 −10 000 0 10 000
$\Delta F_{T,\mathrm{lat}}$ (Mt C)