

# **CERES/Terra Regional Mean TOA Flux Uncertainties**

## Flux Bias Definitions

- ADM mean albedo bias in angular bin  $(\theta_o, \theta_j, \phi_k)$  :

$$\Delta A(\theta_o, \theta_j, \phi_k) = \bar{A}_{ADM}(\theta_o, \theta_j, \phi_k) - A_{DI}(\theta_o)$$

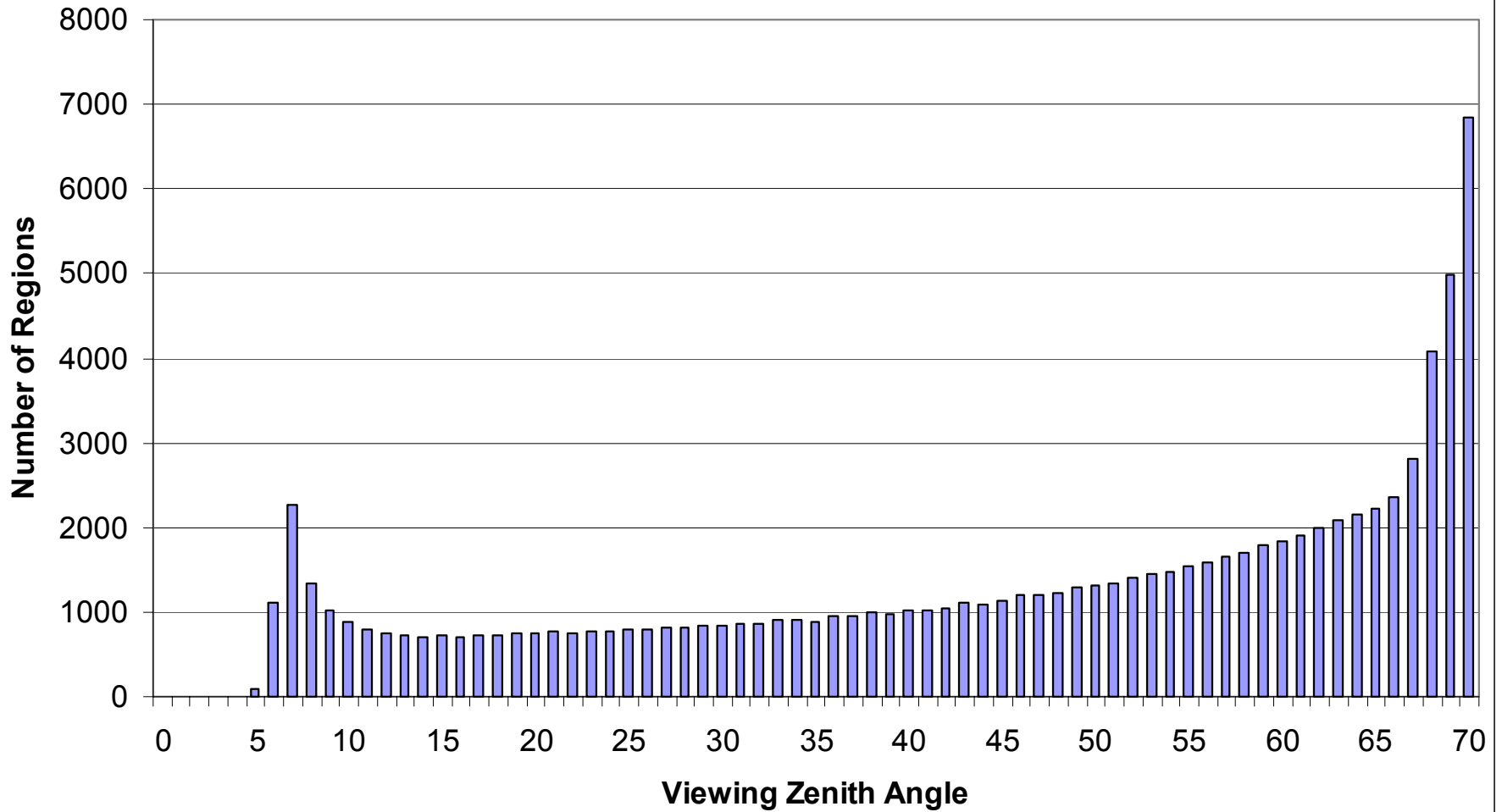
- Footprint-weighted ADM mean albedo bias:

$$\overline{\Delta A}(\theta_o) = \frac{1}{n_k} \frac{1}{n_j} \sum_{k=1}^{n_k} \sum_{j=1}^{n_j} \Delta A(\theta_o, \theta_j, \phi_k) w_j$$

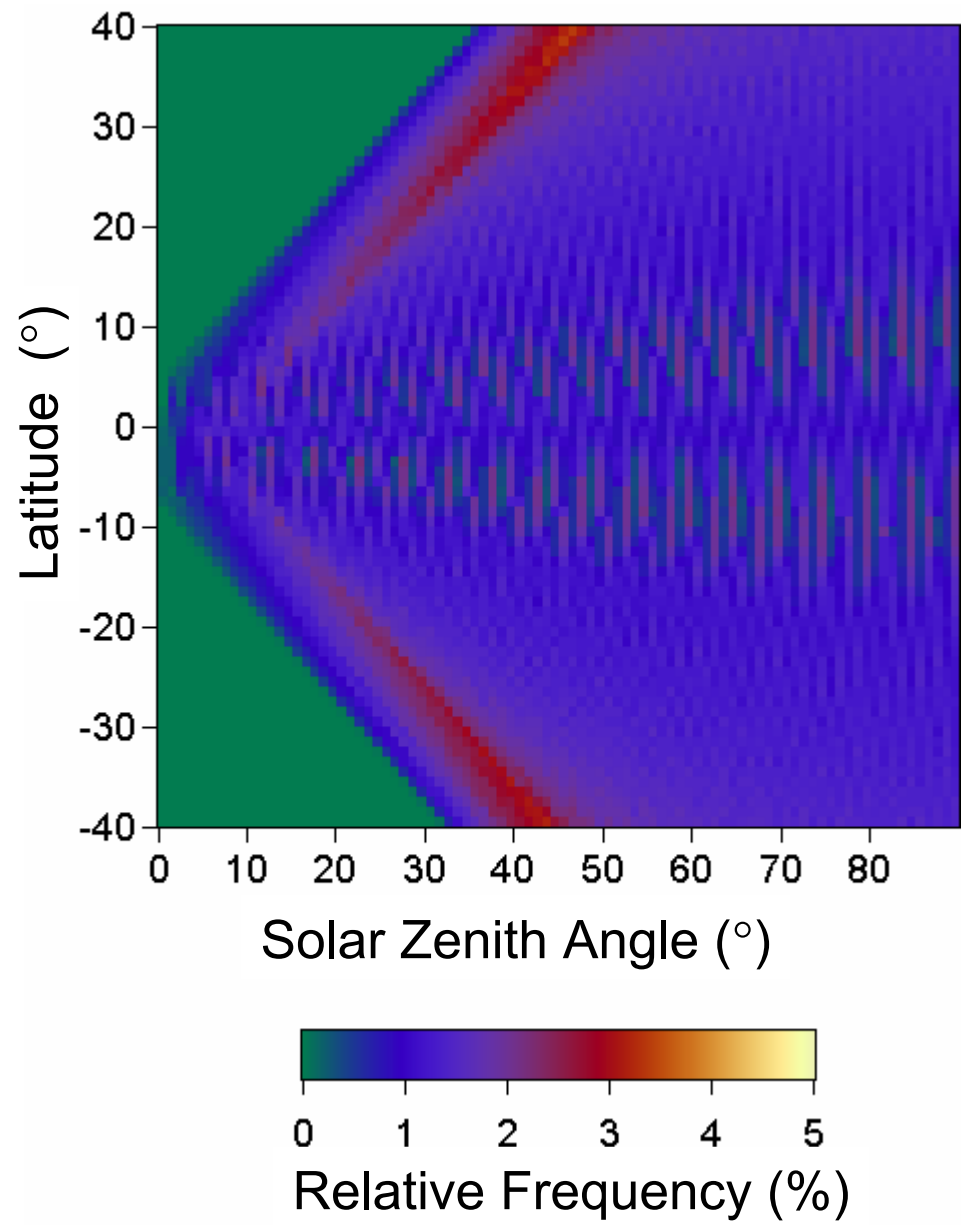
where  $w_j$  is a weighting factor accounting for the relative effect of different viewing zenith angles on gridded time-averaged fluxes.

$n_k$  and  $n_j$  are the number of relative azimuth and viewing zenith angle bins.

# Crosstrack Incidence of Regional Mean VZAs One Month of CERES Data

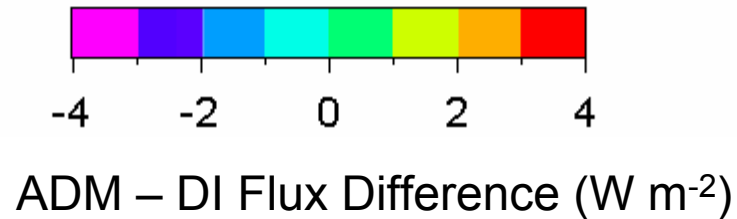
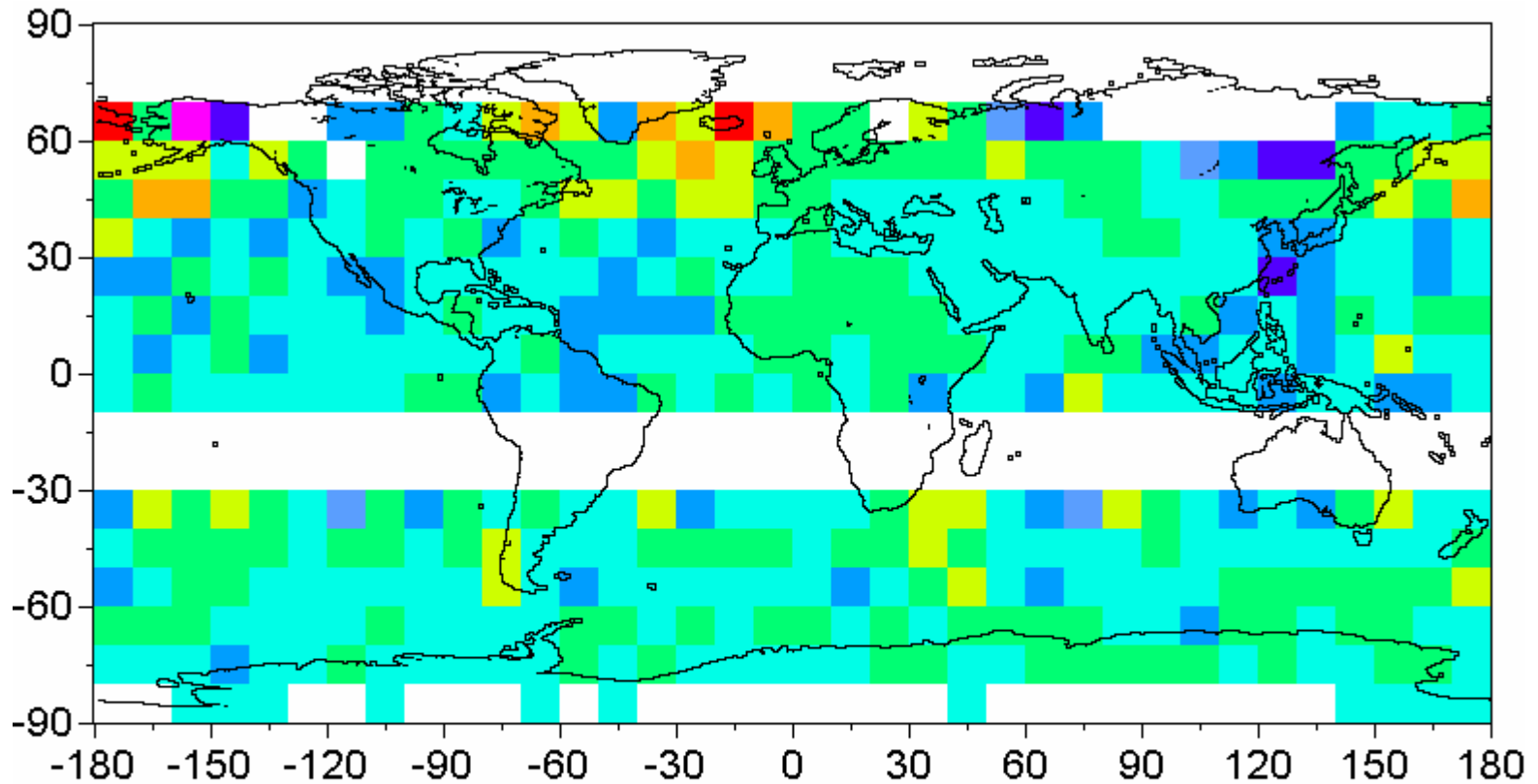


# Solar Zenith Angle Distribution by Latitude (March 1998)

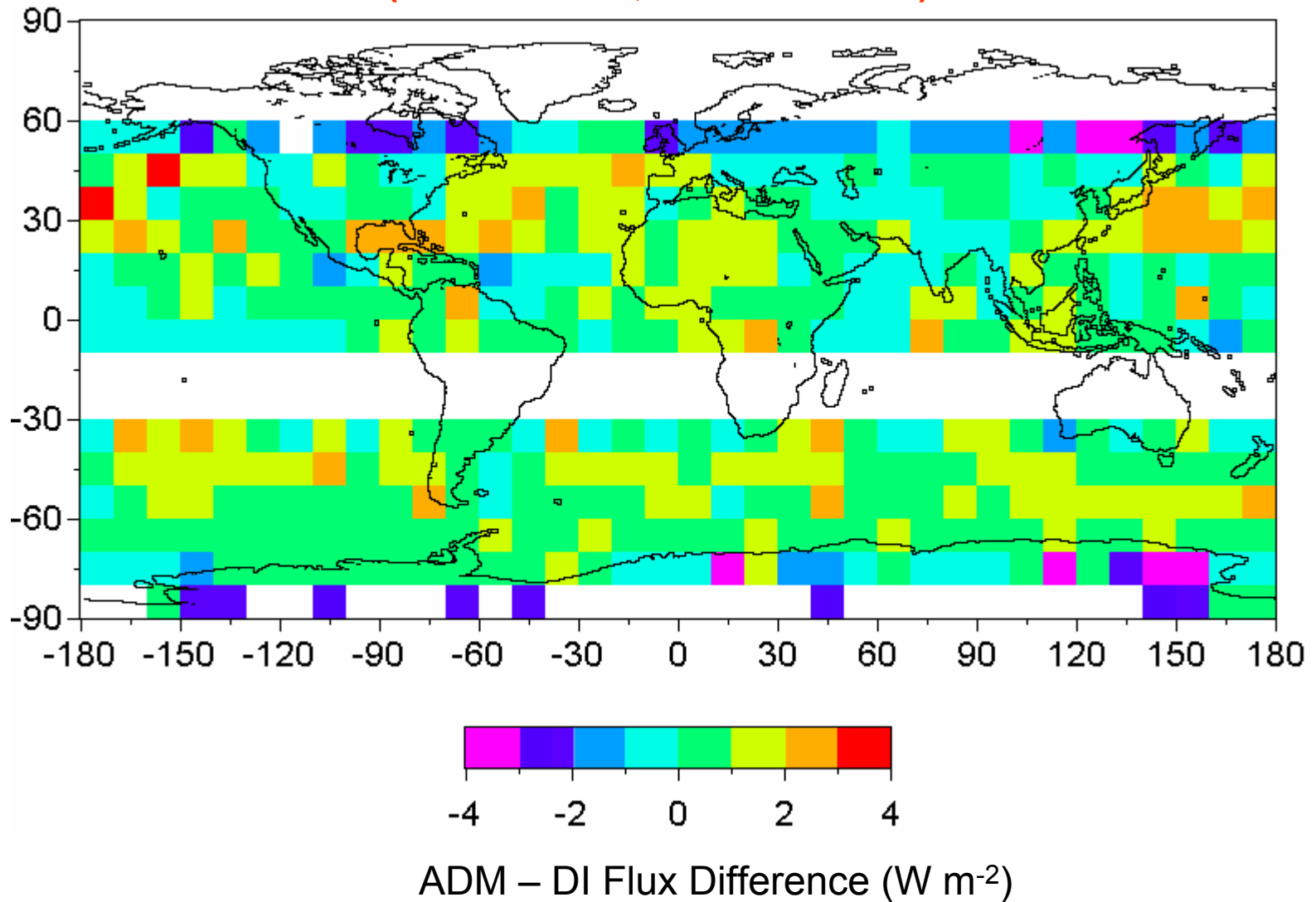




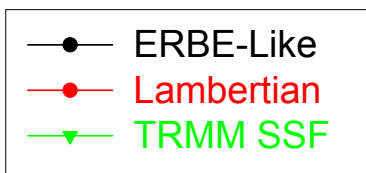
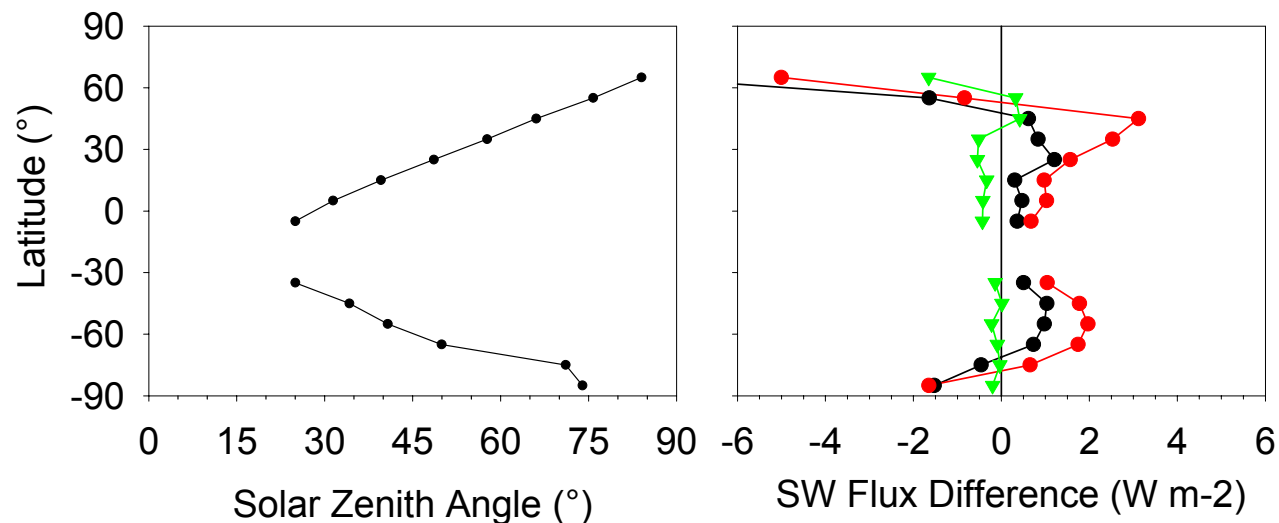
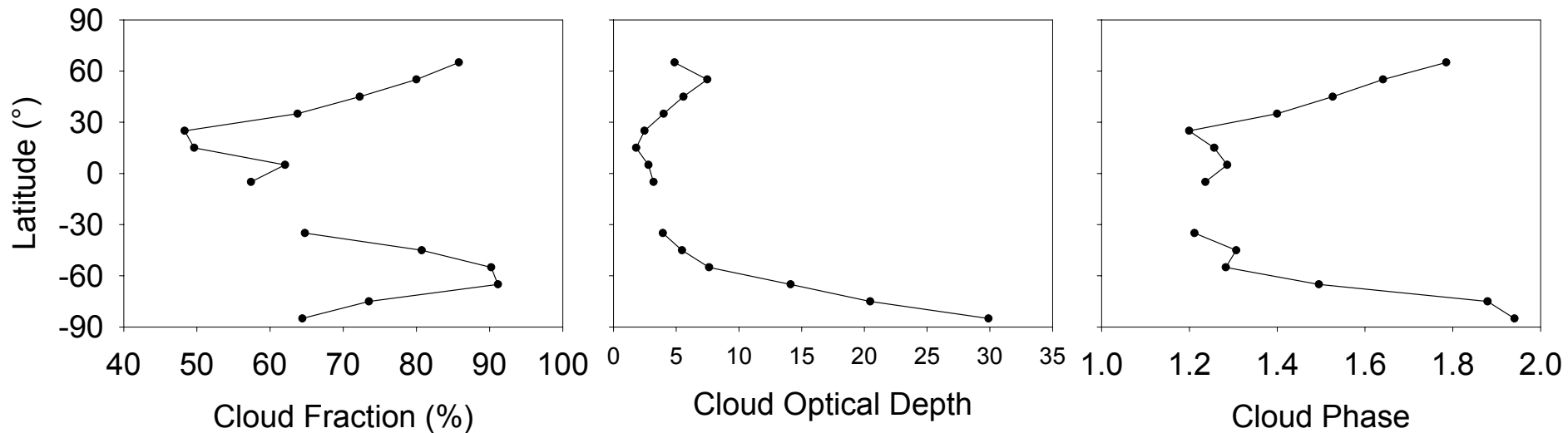
# Regional SW TOA Flux Uncertainties: CERES/Terra SSF (TRMM SSF Ed2B ADMs; Nov-Dec 2000)



# Regional SW TOA Flux Uncertainties: CERES/Terra ERBE-Like (ERBE ADMs; Nov-Dec 2000)

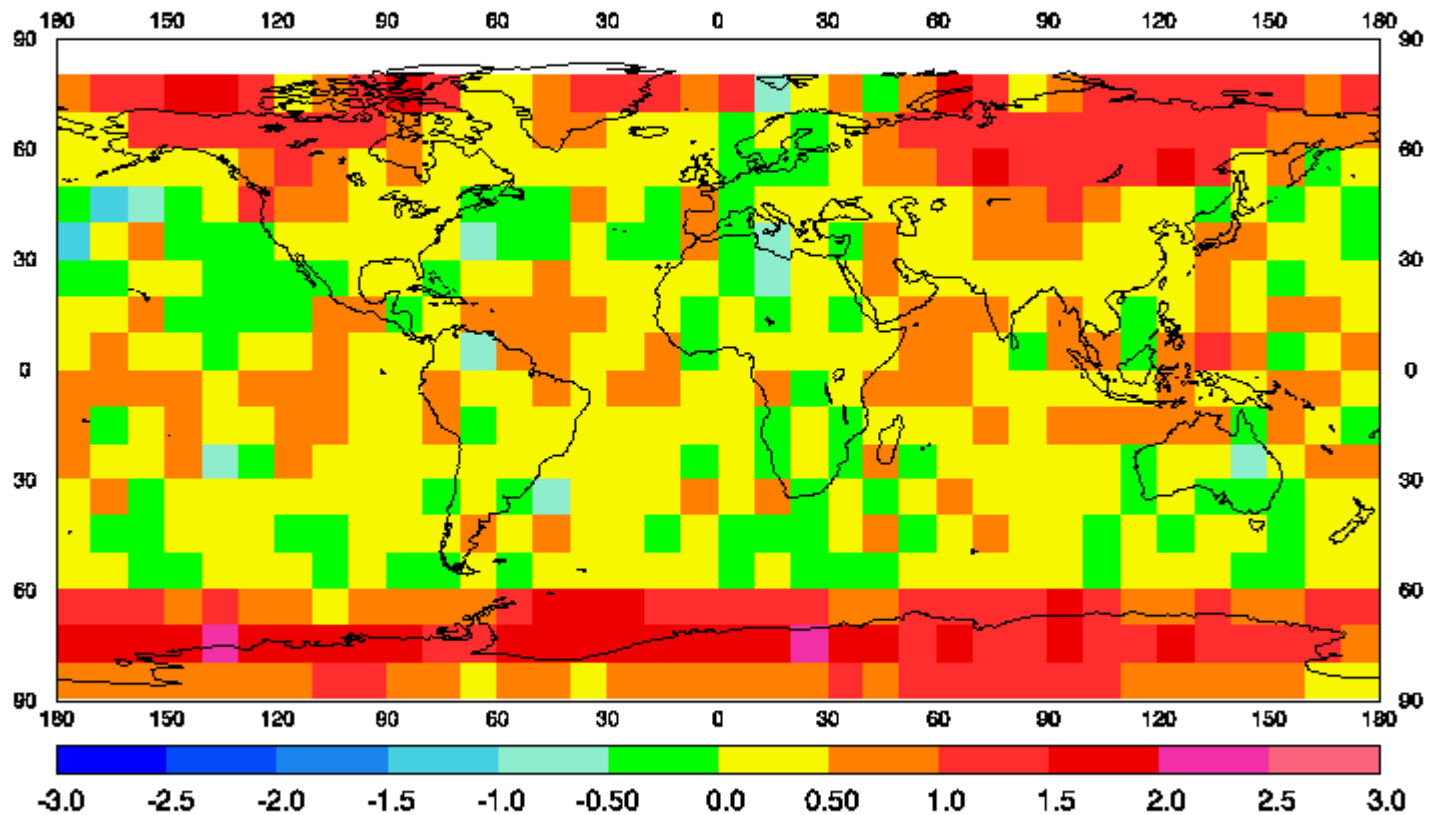


### CERES/Terra (Nov1 - Dec 31, 2000)





Longwave Mean Regional Flux Difference (Terra)  
ED2B - DI (Nov/Dev 2000)



# Latitudinal ADM Mean Flux Bias CERES/Terra $\theta < 70$

Nov/Dec 2000

Apr/May 2001

