

Supplement to the manuscript “CO at 40-80 km above Kiruna observed by the ground-based microwave radiometer KIMRA and simulated by the Whole Atmosphere Community Climate Model”, C.G. Hoffmann et al., 2011, submitted to Atmospheric Chemistry and Physics Discussions (ACPD)

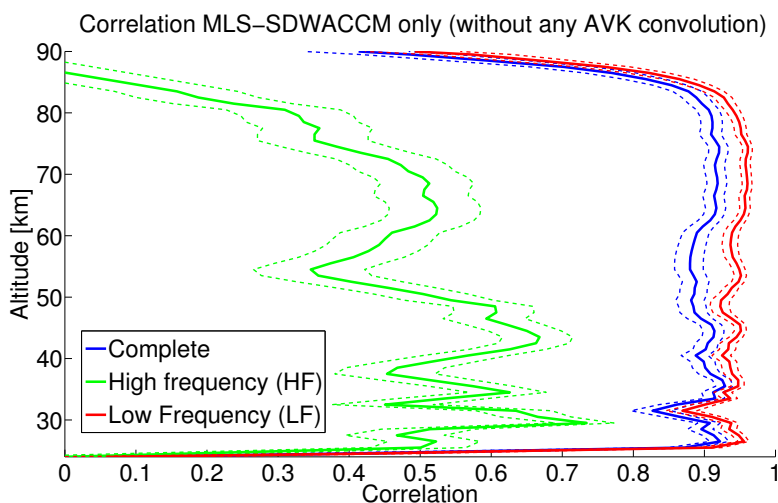


Figure 1: Altitude profiles of the MLS-SDWACCM correlation coefficients for the complete time series, for the high-frequency part alone, and for the low-frequency part alone. MLS and SDWACCM data have not been convolved with the KIMRA AVK, so that these correlation coefficients are not restricted to the coarse KIMRA resolution. The general behavior is similar, which supports the conclusion that all findings discussed in the paper (particularly the very good representation of the low frequency variations in SD-WACCM4) are also valid when analyzed at higher vertical resolution. Note that the SDWACCM dataset should strictly be convolved with the MLS AVK for a precise comparison. Nevertheless, the correlation coefficients shown are a strong indication that the findings presented in the paper are independent of vertical resolution. The dashed lines indicate the 95 % confidence interval of the correlation coefficients.