Atmospheric
Chemistry
and Physics

Supplement of

Ultraviolet radiation modelling from ground-based and satellite measurements on Reunion Island, southern tropics

Kévin Lamy et al.

Correspondence to: Kévin Lamy (kevin.lamy@univ-reunion.fr)

List of acronyms

ADA Aerosol Daily Anomaly.

ALB Albedo.

Alpha Ångström Exponent.

AOT Aerosol Optical Thickness.

BDM O3XS from Brion et al. (1998) and Malicet et al. (1995).

BP O3XS from Bass and Paur (1995).

CF Cloud Fraction, fraction of the sky covered by clouds.

CF-SWF Cloud Fraction obtained with Long et al.'s (2000) algorithm.

CF-SYNOP Cloud Fraction from Meteo-France Hourly Observer Report.

ESD Earth-Sun Distance.

ESFACT Earth-Sun Correction Factor $ESFACT = 1/ESD^2$.

ETS Extraterrestrial Spectrum.

MED Median.

MLS Microwave Limb Sounder, MLS is a microwave limb scanning instrument on-
board
the Earth Observing System Aura satellite.

MRD Mean Relative Difference [%].

O3XS Ozone Cross Sections.

OMI Ozone Monitoring Instrument.

OP Ozone Profile.

RAF Radiative Amplification Factor, RAF_L for RAF derived from a linear law and
RAF_P for a RAF derived from a power-law.

RD Relative Difference [%].

RTUV Reunion-Tropospheric Ultraviolet Model.

SAOZ Système d'Analyse par Observation Zénithal, SAOZ is a UV-visible spectrometer.

SBUV Solar Backscatter Ultraviolet Instrument, SBUV is a series of nadir viewing instrument on-board NOAA satellites from 1979 to present days.

SER O3XS from Serdyunchenko et al. (2014).

SSA Single Scattering Albedo.

STD Standard Deviation.

SUR Surface Ultraviolet Radiation.

SYNOP Hourly Observer Report.

SZA Solar Zenith Angle.

TNO2 Total Nitrogen Dioxide Column.

TO3 Total Ozone Column.

TP Temperature Profile.

TUV Tropospheric Ultraviolet Model.

UV-ALL UVI from Bentham Measurements with no filtering.

UV-SWF UVI filtered with CF-SWF.

UV-SYNOP UVI filtered with CF-SYNOP.