AEROCOM

New Data Protocol
and
Selected Comparisons

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AeroCom output processing

so far 8 models have delivered netCDF format data

**Current procedure**
- data are averaged with nco scripts
- variables are renamed to «Aerocom» - names
- data are preprocessed in idl
  (units, species split, column integration etc)
- data are plotted in idl and converted to *.png
- images are transferred to IPSL web server
- interactive website uses Perl scripts
  to look up available species and parameters per model
PRELIMINARY RESULTS!! DO NOT CITE NOR USE WITHOUT ASKING MODEL AUTHORS

AEROCOM simulation results / Comparison among models / data

Kyoto 2000 - Takemura

ULAEQ CLIM - Pilar/Montenero

ARQM - SS - EMI

LMDzT 2000 - Schulz/Balkanski/Textor

LSCE - SS - EMI
Sulphate
Particulate Organic Matter

Emissions

Lifetime

OD 550

BC+POM
**Black Carbon**

- **Emissions**
  - Y-axis: [MT]
  - KYU, LSCE, PNNL, UIO, ARQM, ULAQ, DGU, MPIM

- **Lifetime**
  - Y-axis: [days]
  - KYU, LSCE, PNNL, UIO, ARQM, ULAQ, DGU, MPIM

- **OD 550**
  - Y-axis: 0.00 to 0.02
  - KYU, LSCE, PNNL, UIO, ARQM, ULAQ, DGU, MPIM
Daily (local noon?) versus Monthly Mean

**Sulfate OD 550 KYU**
- Mean: $3.42703 \times 10^{-2}$
- Mean: $2.83083 \times 10^{-2}$

**Dust KYU**
- Mean: $2.43965 \times 10^{-2}$
- Mean: $2.44586 \times 10^{-2}$
Cloud cover

KYU

UIO
Relative Humidity from daily output

KYU

UIO
Aerosol water mass

KYU

Mean: 3.57826E-05 kg/m²

ULAQ

Mean: 4.01634E-05 kg/m²

UIO

Mean: 2.18414E-04 kg/m²

LSCE

Mean: 3.33907E-06 kg/m²
Surface aerosol composition and opt. parameters at selected surface sites will be added to the AEROCOM-protocol for the year 2000 simulations.

Profile Output of LMDz-INCA year 2000 Aerosol composition, optical parameters
*(preliminary collection of aerosol sites Guibert&Schulz for EU CREATE project)*

**AEROCOM**
- Regional comp.
- Point comp.