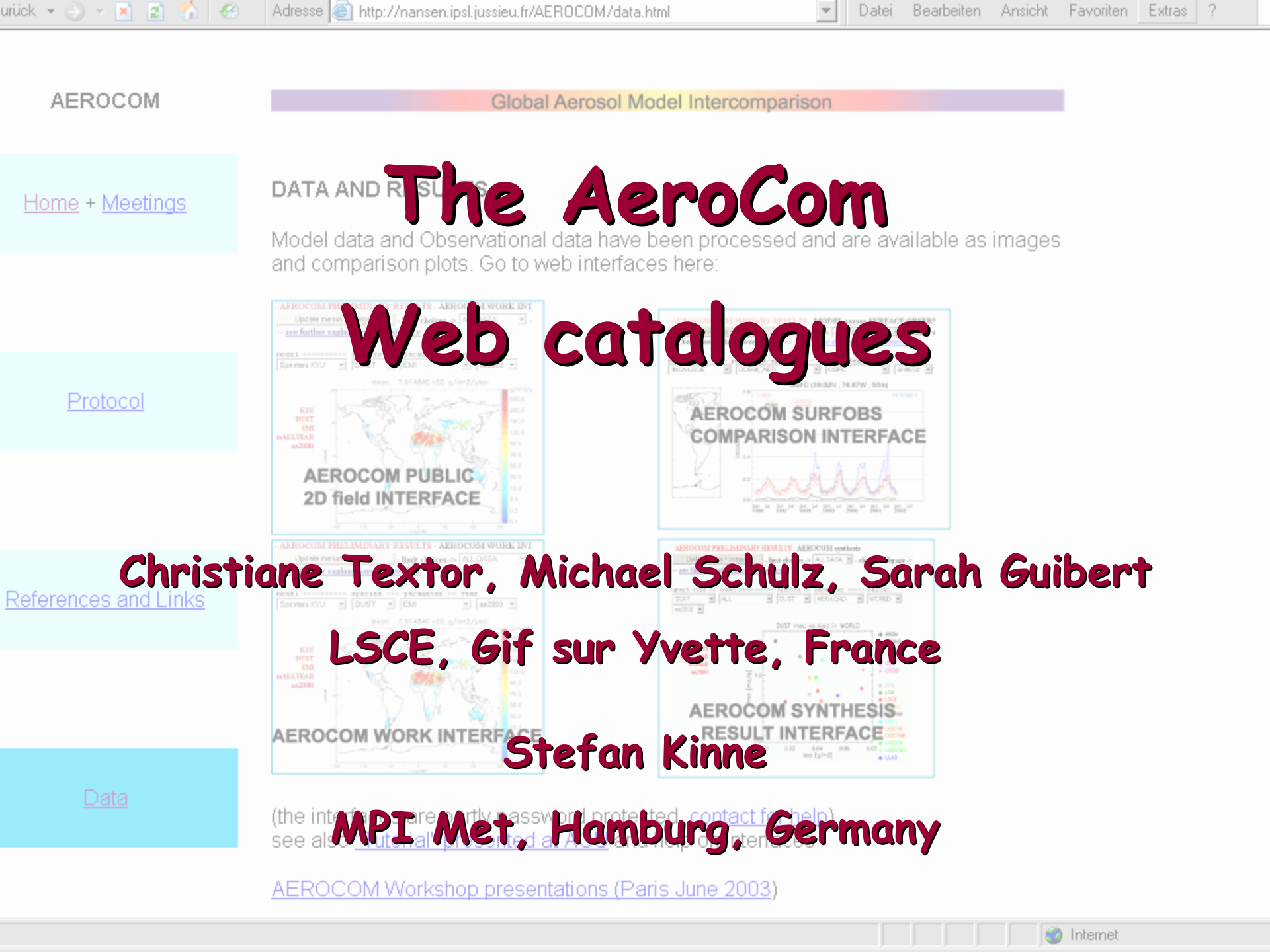


The AeroCom Web catalogues

Christiane Textor, Michael Schulz, Sarah Guibert

LSCE, Gif sur Yvette, France

Stefan Kinne

MPI Met, Hamburg, Germany

urück | Adresse http://nansen.ipsl.jussieu.fr/AEROCOM/data.html | Datei Bearbeiten Ansicht Favoriten Extras ?

AEROCOM

Global Aerosol Model Intercomparison

Home + Meetings

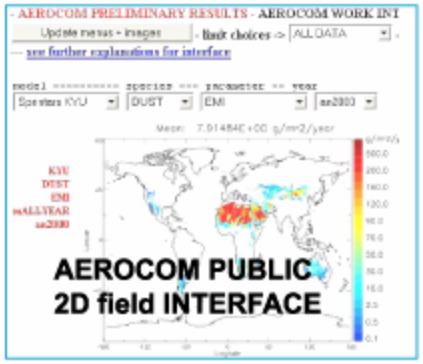
Protocol

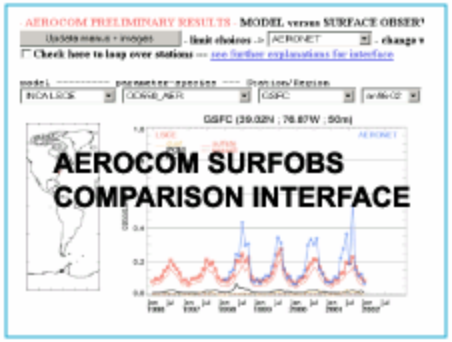
References and Links

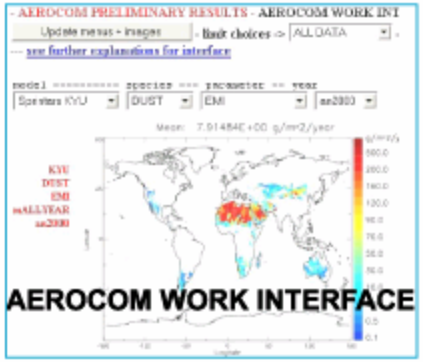
Data

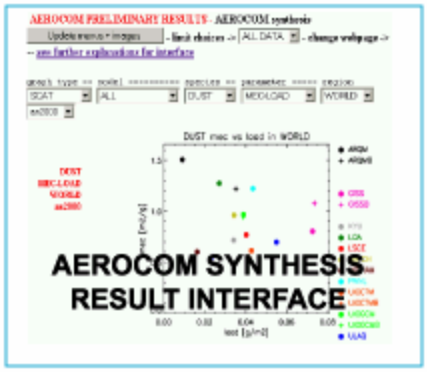
DATA AND RESULTS

Model data and Observational data have been processed and are available as images and comparison plots. Go to web interfaces here:









(the interfaces are partly password protected, contact for help)
see also "Tutorial" presented at AGU and help on interfaces

AEROCOM Workshop presentations (Paris June 2003)

Internet

Objective of the AeroCom web catalogues

- Communication platform for aerosol community
- Dokumentation of the state of the art
- Presentation of results from AeroCom models
- Compilation of a multitude of data
- Model analysis and validation
  - Model-data comparison
  - Model-model comparison
  - Model analysis, synthesis of results

AeroCom Surfobs/Lidar Web Interfaces

4th AeroCom workshop, Oslo, June 15-17, 2005

SURFOBS web interface

http://nansen.ipsl.jussieu.fr/AEROCOM/DATA/surfobs.html

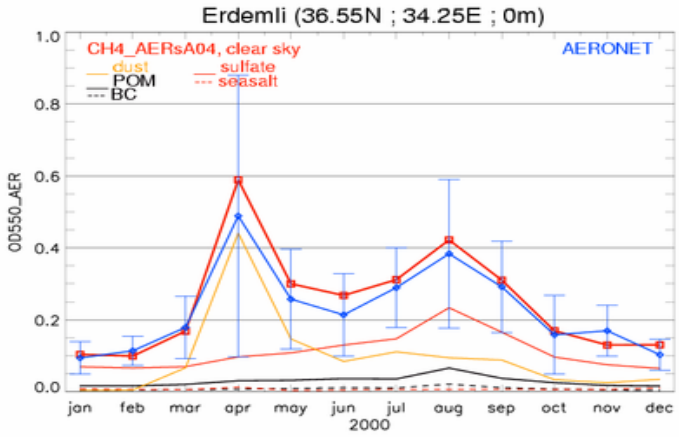
- AEROCOM PRELIMINARY RESULTS - MODEL versus SURFACE OBSERVATIONS

UPDATE - limit choices -> ALL DATA - change webpage -> presently on nansen surfobs interface

-> see info -> Explicit One image Interface - performance? -> menus & images updated after selection change (slower but little failure)

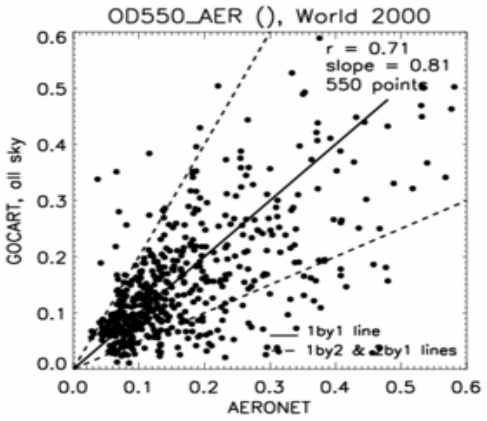
menus: graph type ---- data source ---- species ---- parameter ---- station ---- year ----- period

SERIES | INCA LSCE | AER | OD550 | Erdemli | an2000 | mALLYEAR



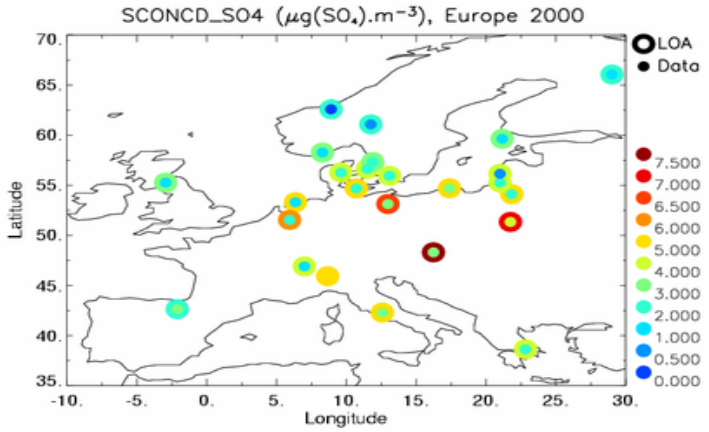
menus: graph type ---- data source ---- species ---- parameter ---- station ---- year ----- period

SCAT | GOCART | AER | OD550 | WORLD | an2000 | mALLYEAR

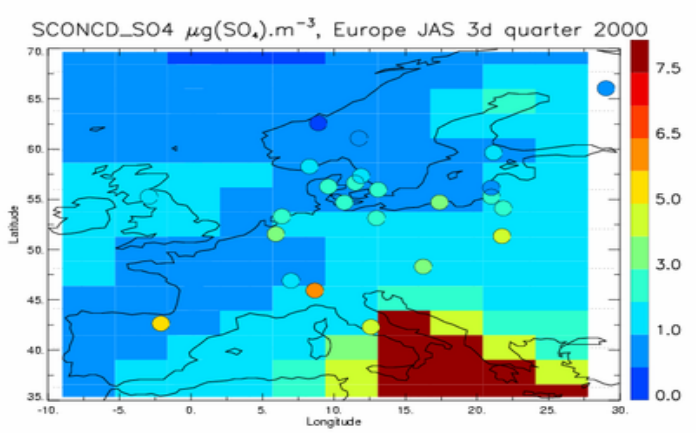


menus: graph type ---- data source ---- species ---- parameter ---- station ---- year ----- period

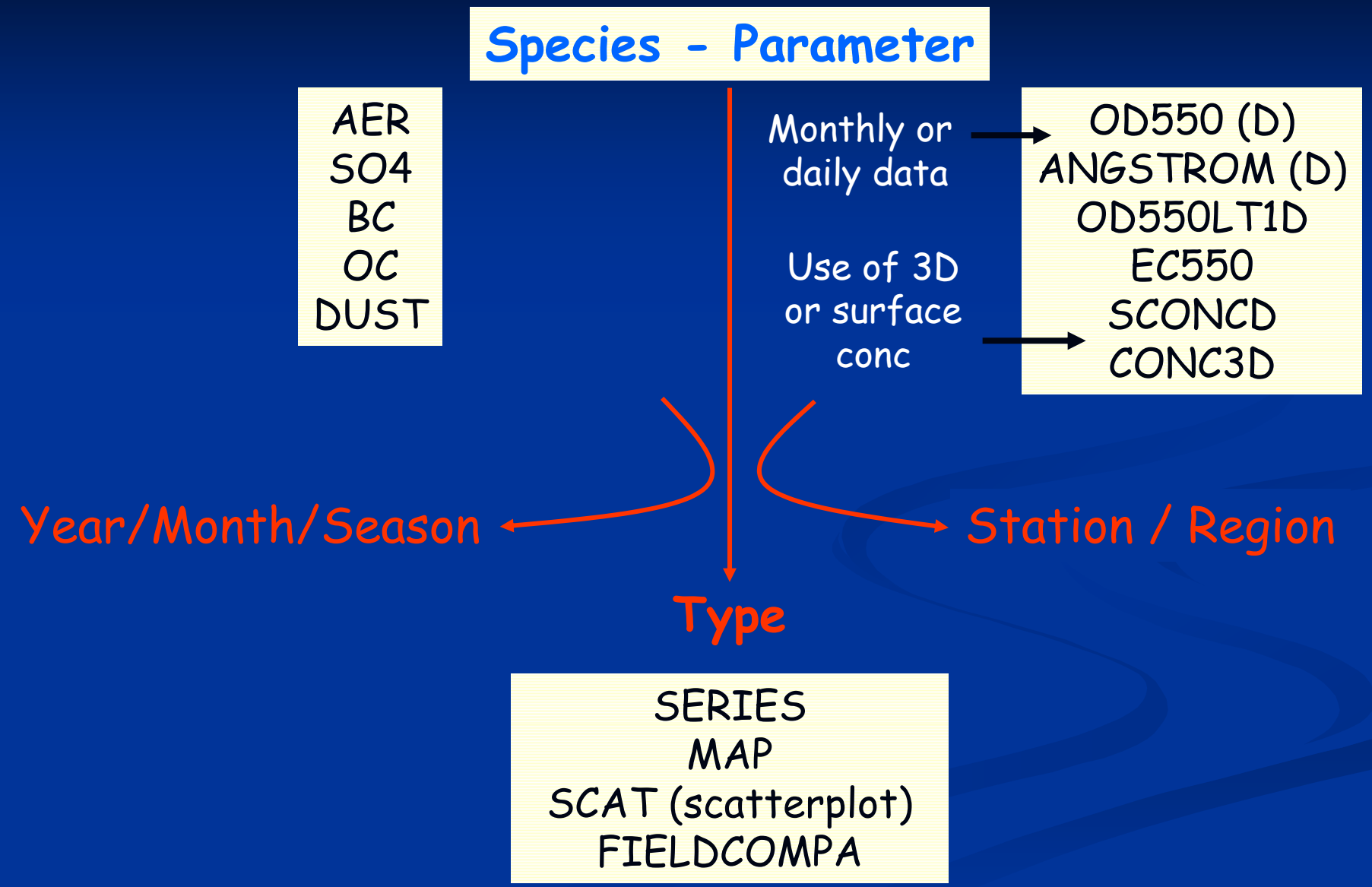
MAP | LOA Lille ExpA | SO4 | SCONCD | Europe | an2000 | mALLYEAR



FIELDCOMPA | LOA Lille ExpB | SO4 | SCONCD | Europe | an2000 | mJAS



Types of graph producted



Post-processing of model output

Horizontal interpolation :
Model output interpolated to stations locations

Daily filtration :
Daily data => Model data filtering according to observations

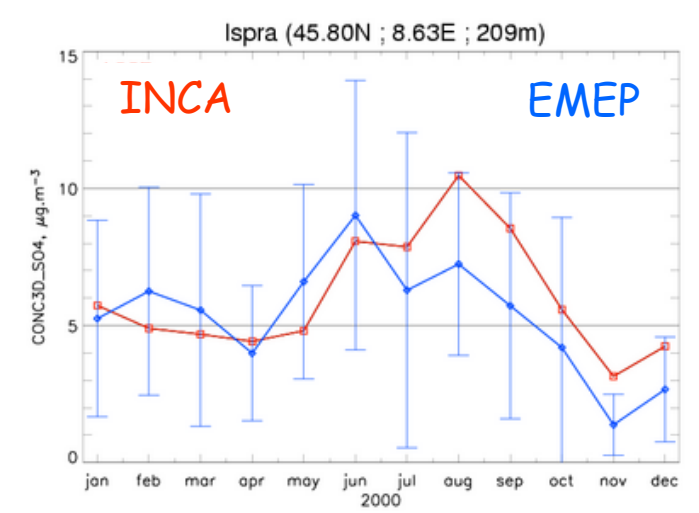
If at least 8 days in a month with data
=> Monthly mean (use for timeseries and scatterplots)

If at least 3 months in a year with data
=> Yearly mean (use for Map anf Fieldcompa)

Rejection of mountain sites for surface comparison

Features (1)

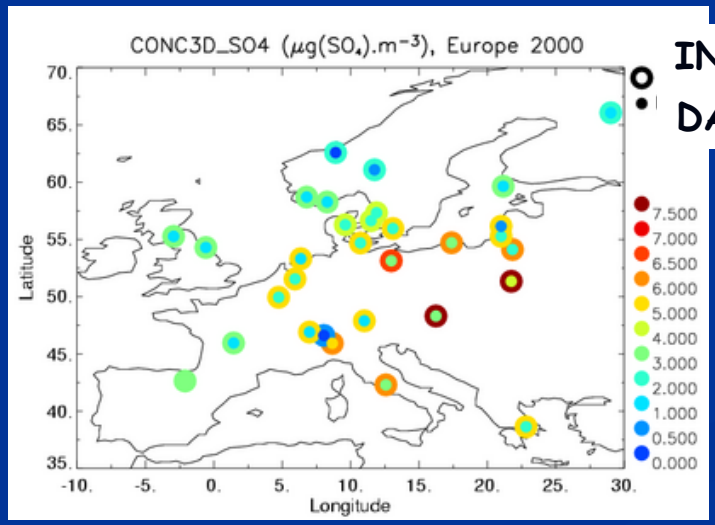
SERIES : time series at each station

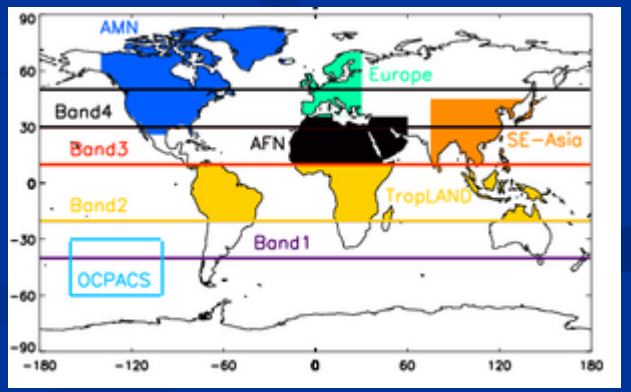


SCONCD : use of surface daily concentration => Daily filtration
+ no mountain sites

CONC3D : use of 3D monthly concentration => interpolation of modeled data to the grid box containing the altitude of the station

MAP : comparison model/obs at each station

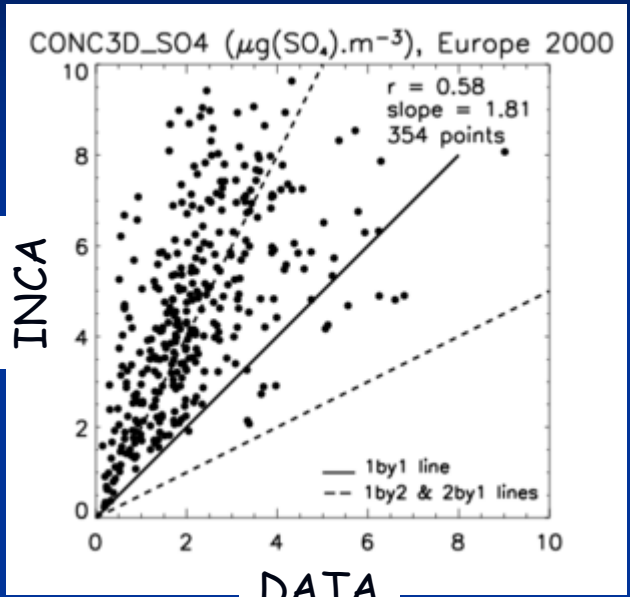




Yearly mean values

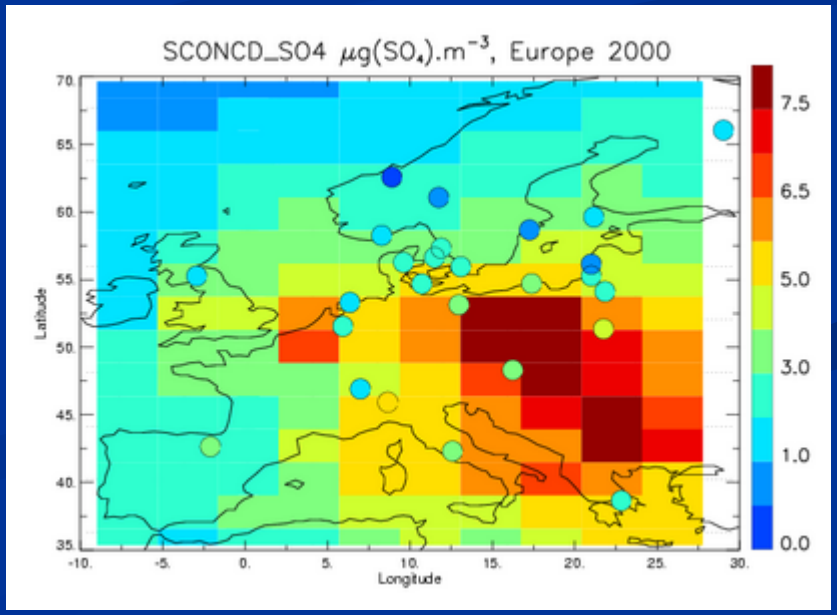
Features (2)

SCAT : scatterplot between model and obs



Use of the monthly mean values at each station

FIELDCOMPA: FIELD + superposition of obs value at each station



Yearly mean value

Model output + data at surface

Exists for each month + seasonal average

Basics principles for interfaces

Standard categories used for any image :

[GRAPHTYPE]_ SPECIES]_[PARAMETER]_[REGION]_an[YEAR]_[PERIOD]

Choice of each « category » to see the corresponding graph

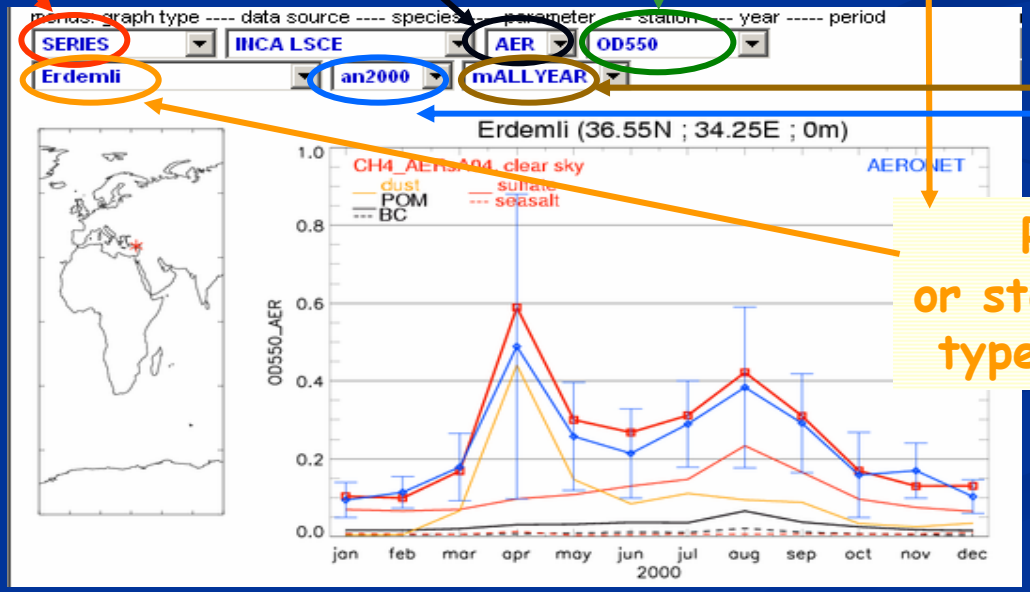
SERIES
MAP
SCAT
FIELDCOMPA

AER
SO4
etc…

OD550
SCONCD
etc…

2000
2001
9999

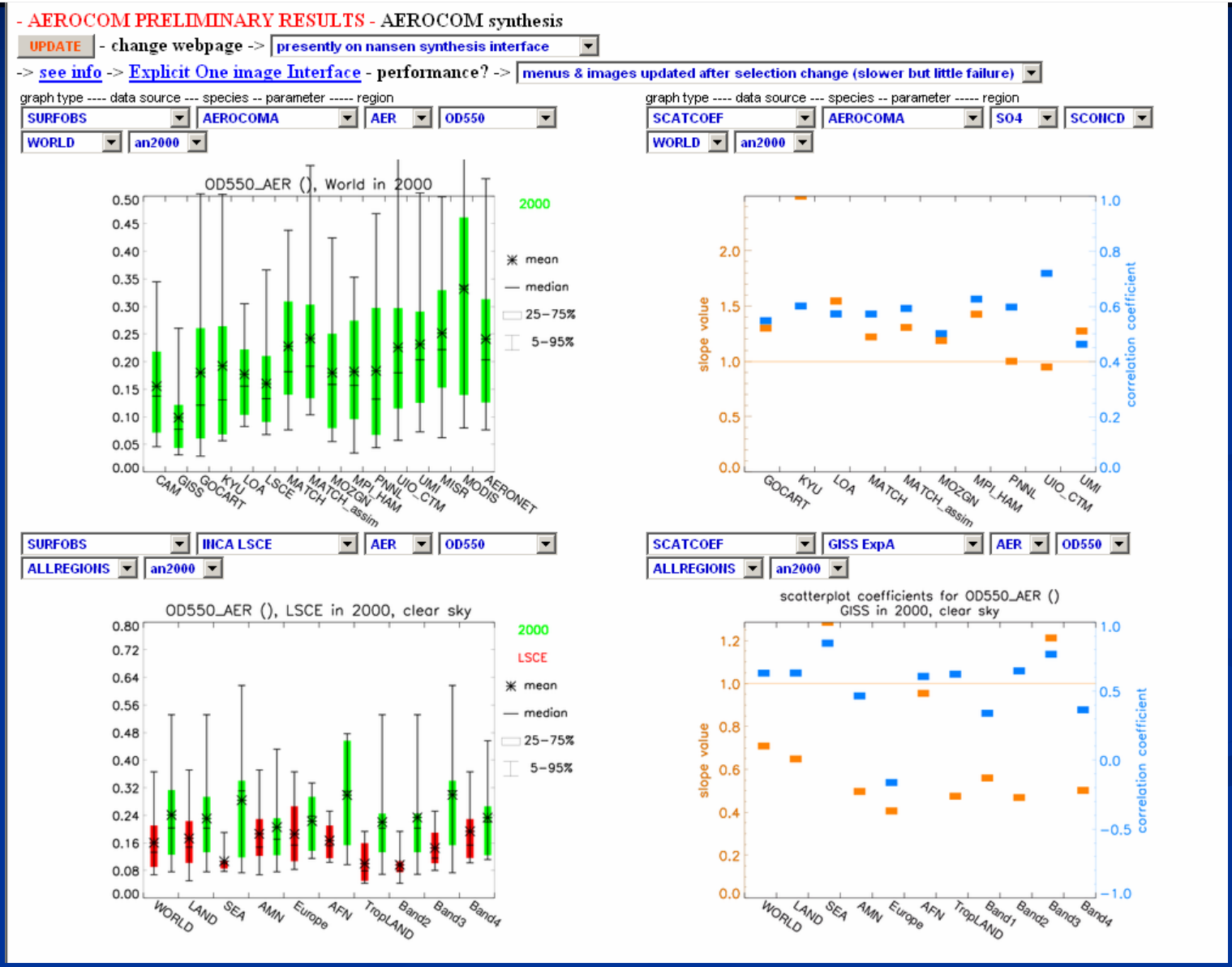
mALLYEAR
or each month :
m01, m02, ….., m12
or seasonal period :
mJFM, mJAS, …



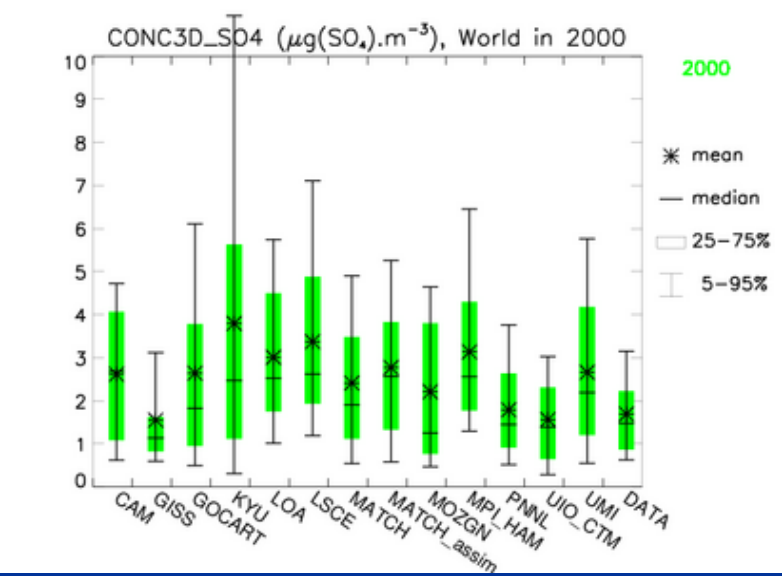
Regions
or stations when
type = SERIES

SYNTHESIS web interface

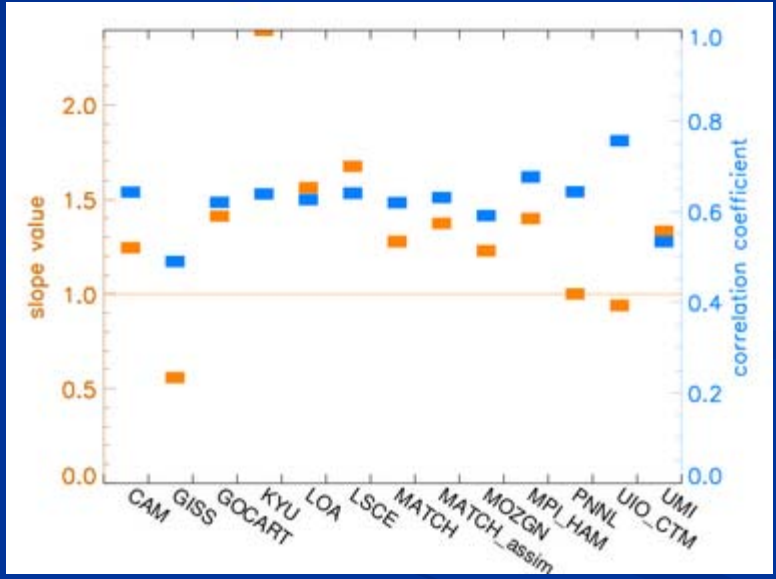
http://nansen.ipsl.jussieu.fr/AEROCOM/DATA/synthesis.html



Features



SURFOBS : comparison of mean model/data values



SCATCOEF : comparison of slope and regression coef

Basics principles for interfaces

Standard categories used for any image :

[GRAPHTYPE]_ SPECIES]_[PARAMETER]_[REGION]_an[YEAR]

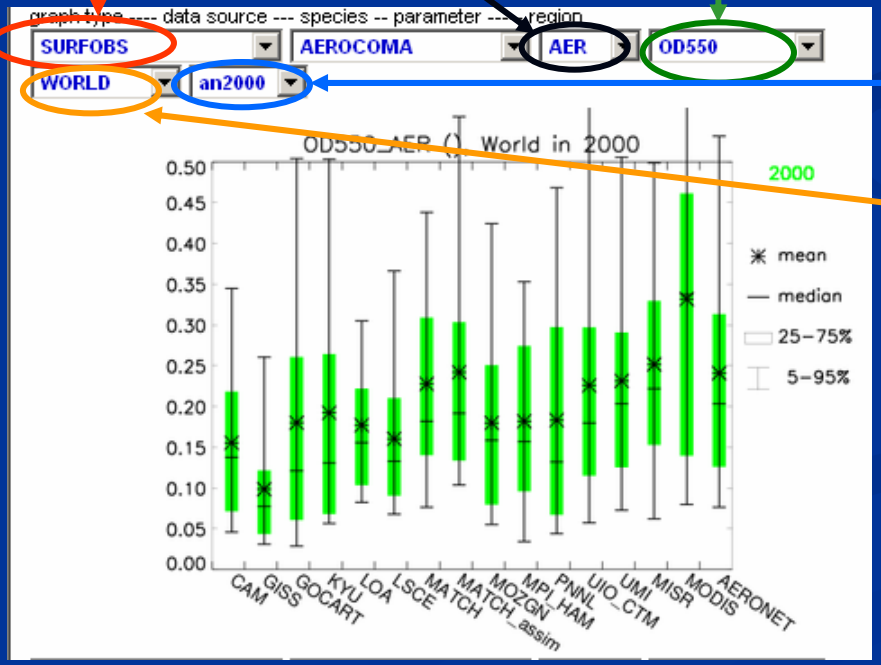
Choice of each « category » to see the corresponding graph

SURFOBS
SCATCOEF

AER
SO4
etc…

OD550
SCONCD
etc…

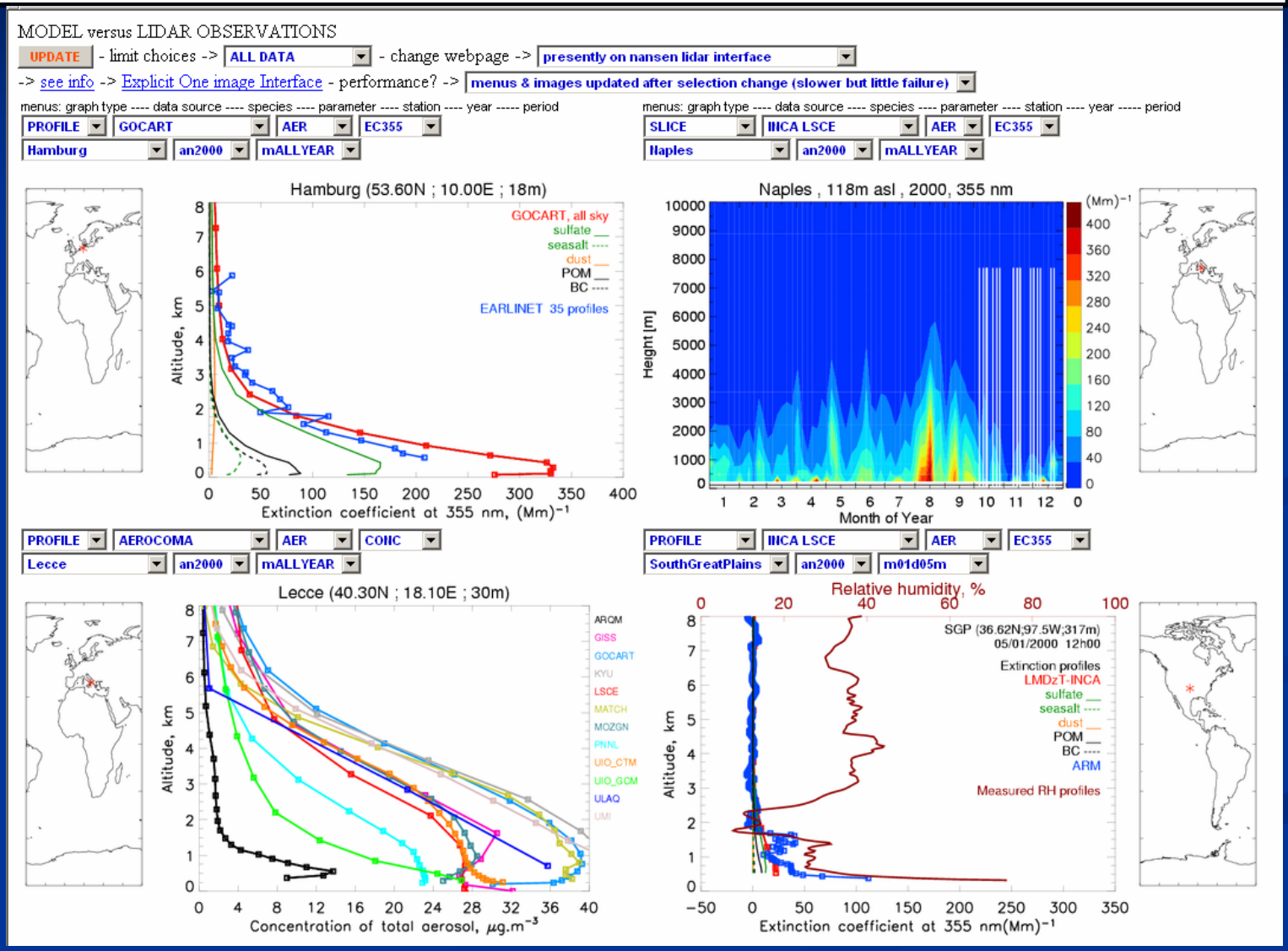
2000
2001
9999



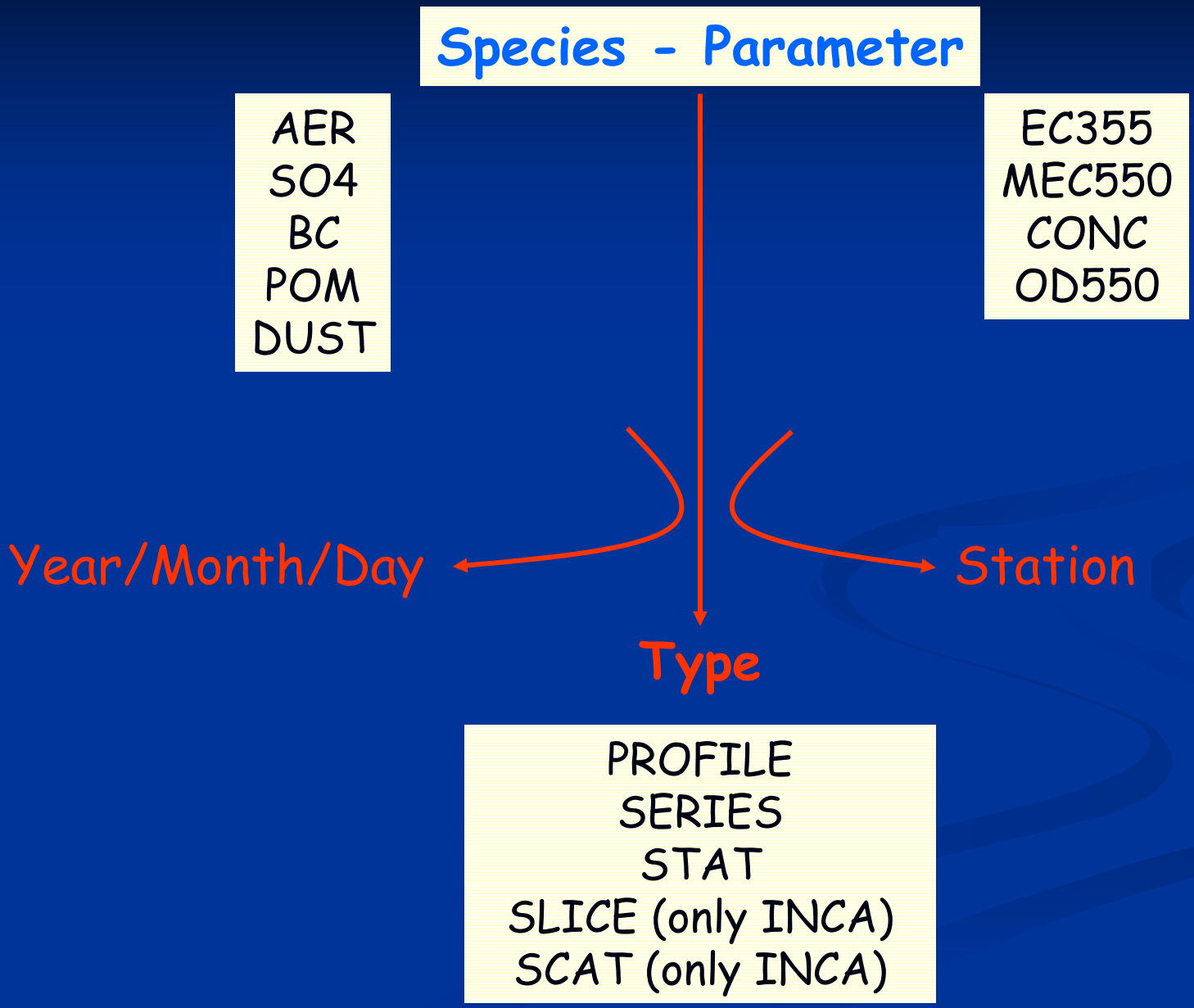
Regions
or ALLREGIONS
when model and not
AEROCOMA or B

LIDAR web interface

http://nansen.ipsl.jussieu.fr/AEROCOM/DATA/lidar.html



Types of graph producted



Basics principles for interfaces

Standard categories used for any image :

[GRAPHTYPE]_ SPECIES]_[PARAMETER]_[REGION]_an[YEAR]_[PERIOD]

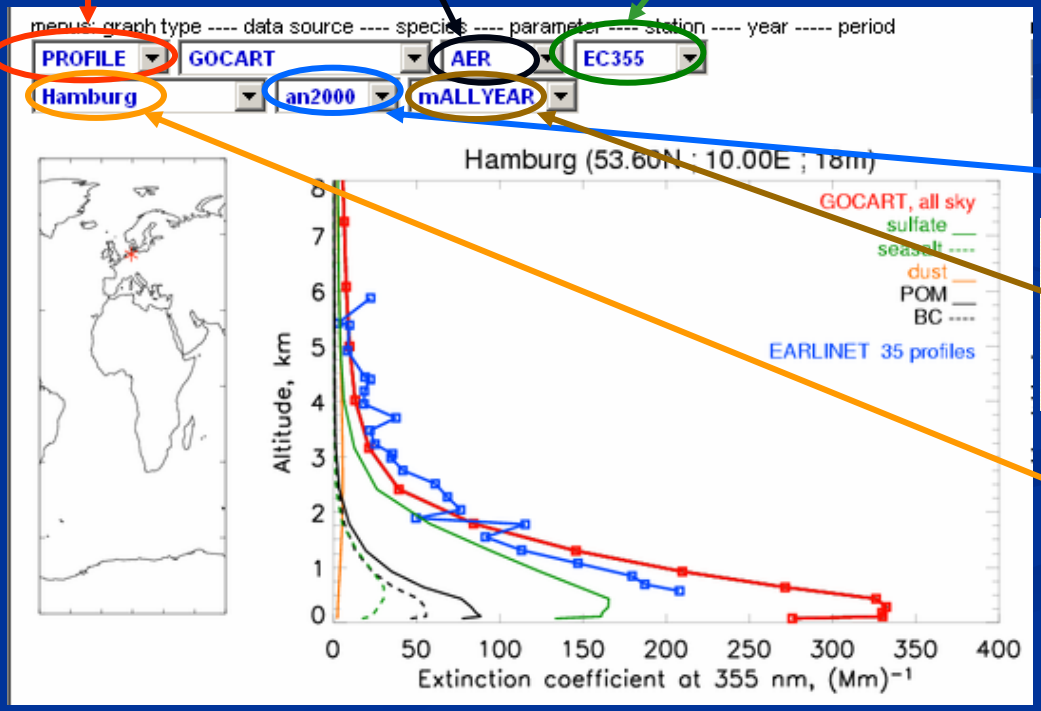
Choice of each « category » to see the corresponding graph

PROFILE
STAT
etc…..

AER
SO4
etc…

OD550
SCONCD
etc…

2000
2001
9999



mALLYEAR
or each month (m01,…)
or each day (m01d05,…)

Stations

The AEROCOM WORK INTERFACE

→ 2d fields, budgets and averages

AEROCOM Aerosol Model Comparison WORK INTERFACE - Microsoft Internet Explorer

Zurück | Adresse http://nansen.ipsl.jussieu.fr/cgi-bin/AEROCOM/aerocom_work/aerocom | Datei Bearbeiten Ansicht Favo

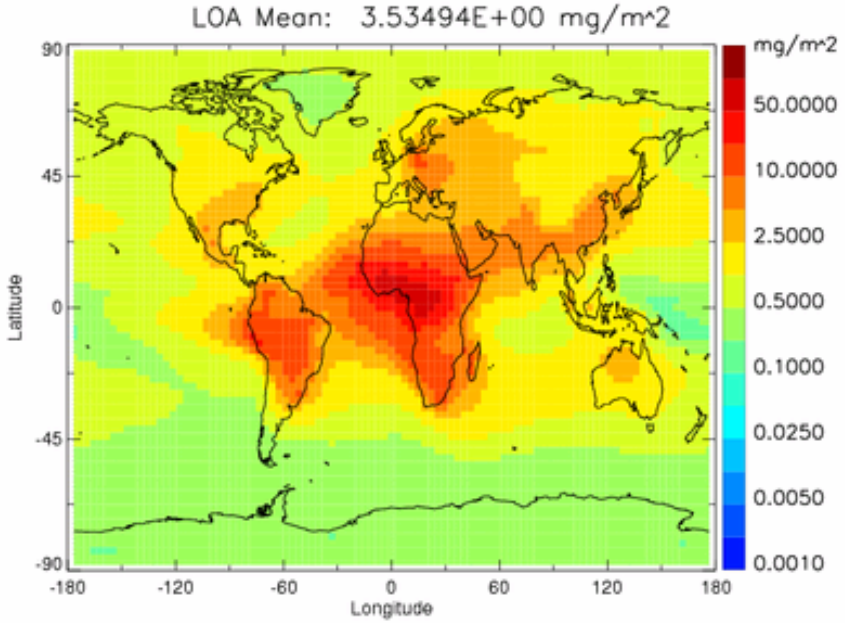
- AEROCOM PRELIMINARY RESULTS - AEROCOM WORK INTERFACE -

UPDATE - limit choices -> ALL DATA - change webpage -> presently on nansen aerocom_work interface

-> see info -> Explicit One image Interface - performance? -> menus & images updated after selection change (slower but little failure)

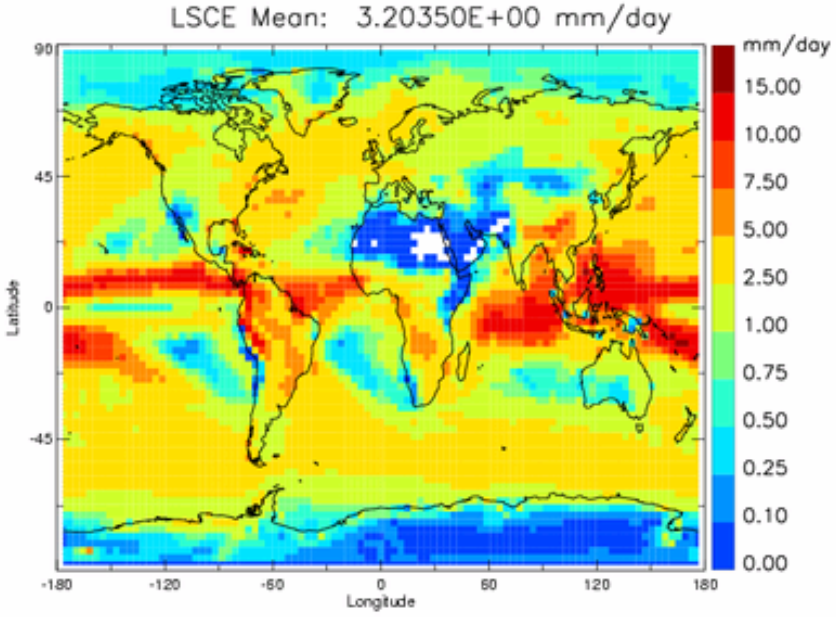
data source ---- species --- parameter -- year

LOA Lille ExpA | POM | LOADD | an2000



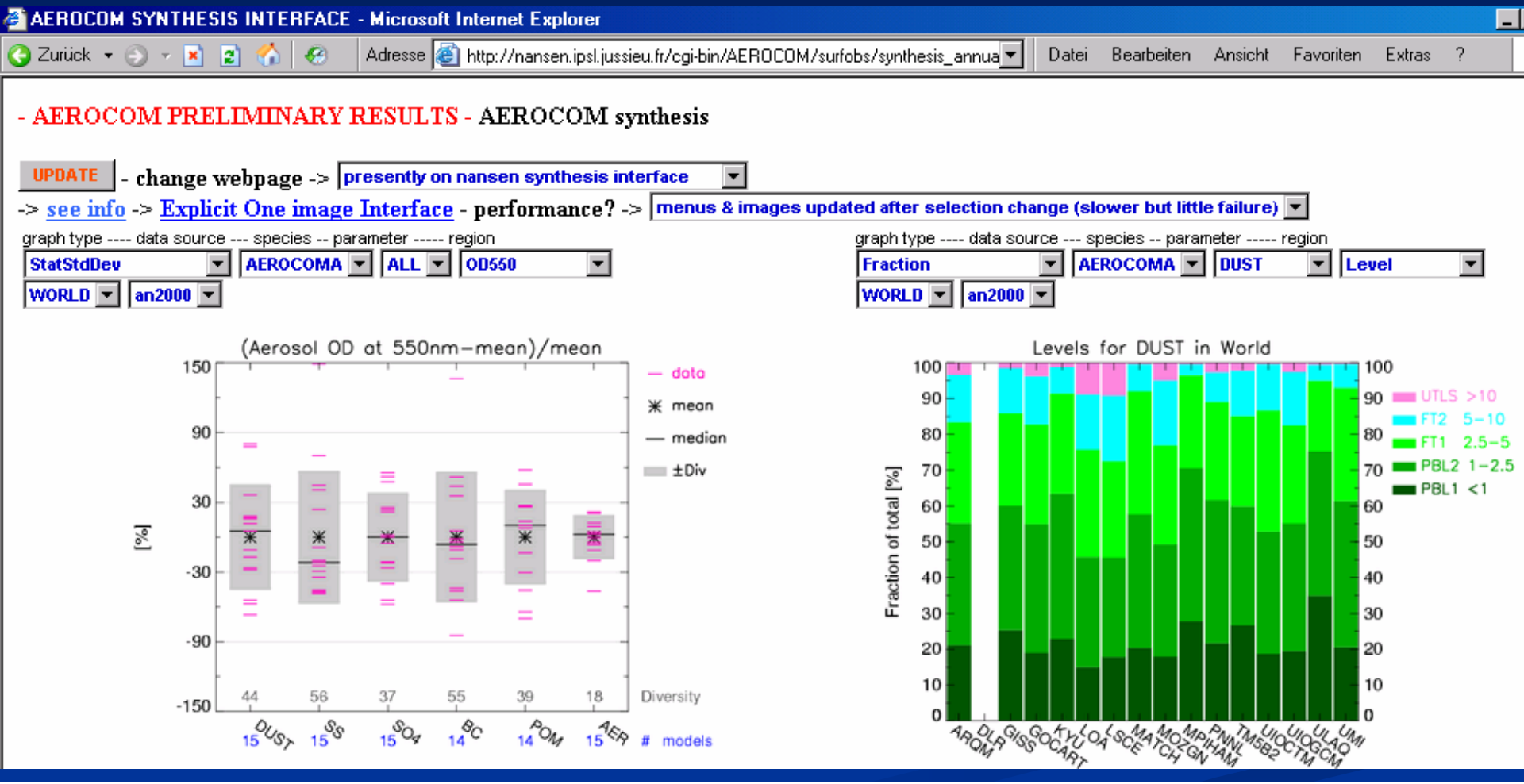
data source ---- species --- parameter -- year

INCA LSCE | METEO | PREC | an2000



The AEROCOM SYNTHESIS web site

→ *ongoing* analysis of model results



Plot type - Experiment/Model- Species- Parameter - Year

Not all combinations work: always update (twice) !

Datei Bearbeiten Ansicht Fa » Adresse http://nansen.ipsl.jussieu.fr/cgi-bin/AERO

- AEROCOM PRELIMINARY RESULTS - AEROCOM synthesis

Choose from menus parameter combination for next image & press update button --
Or go to -> 4-image interface with abbrev. Menus or
- change webpage -> presently on nansen synthesis interface
- performance? -> menus & images updated after selection change (slower but little failure)

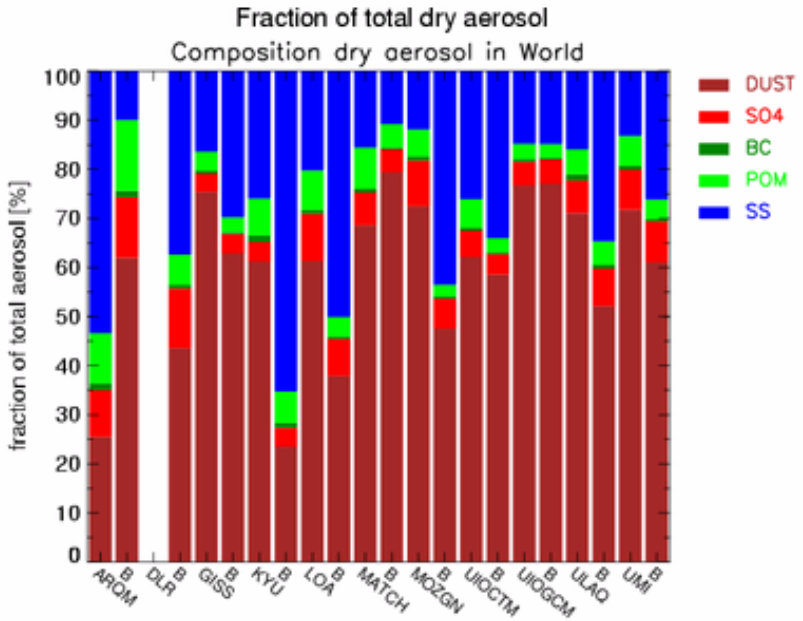
Type of Graph
Fraction = global annual average mass fraction value for models

Data Source ->
EXPAB = synthesis graphs for models which have both Exp A and Exp B

Species ->
AER = Total dry Aerosol

Parameter ->
Comp = Composition: global annual mass fraction of species / total mass

Region -- Year ->
WORLD an2000 Click to Update menus + images



Plot types

DIFF

CORR

Fraction

MAP

Mean

Merid

SCAT

SCATCOEFF

StatRange

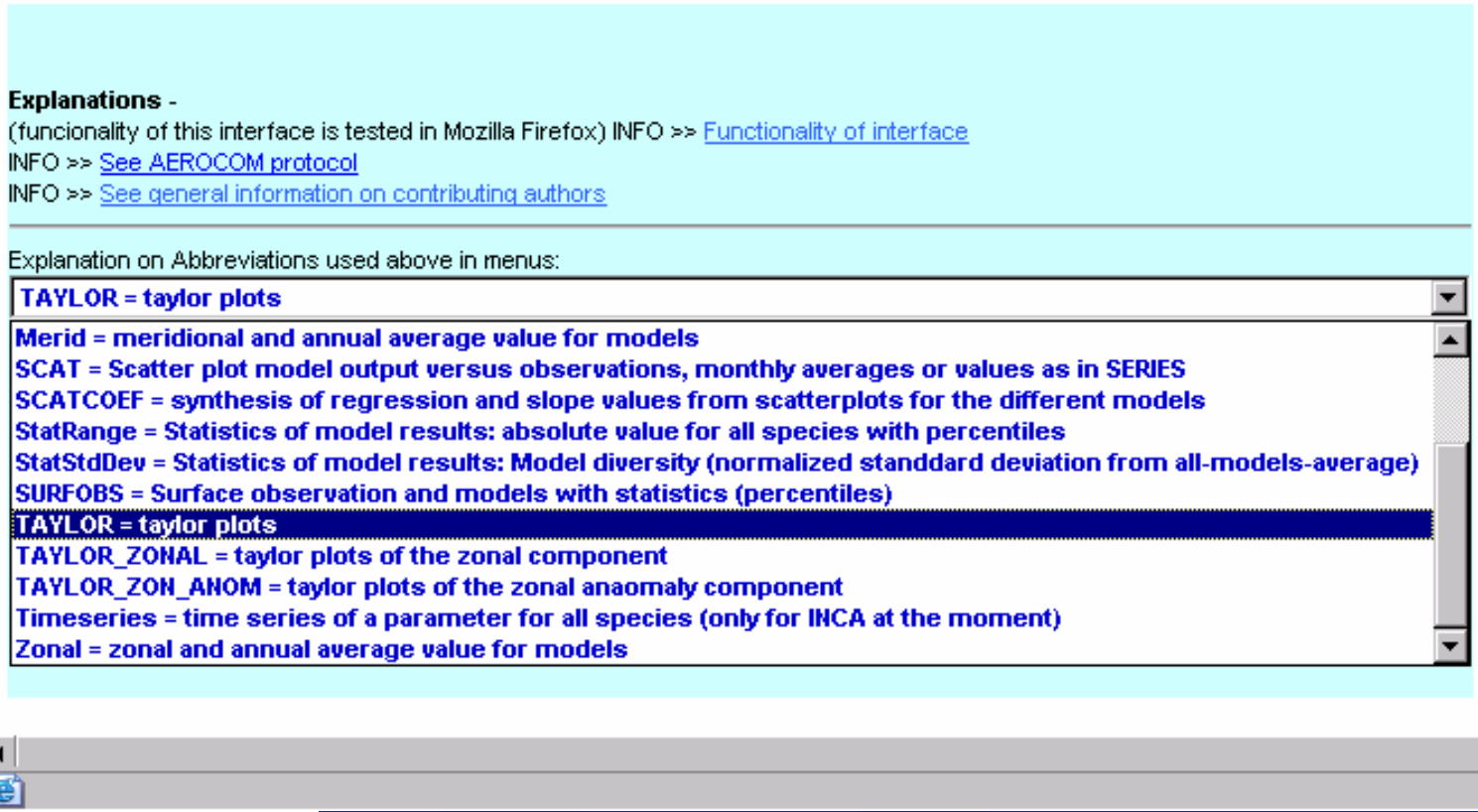
StatStdDev

SURFOBS

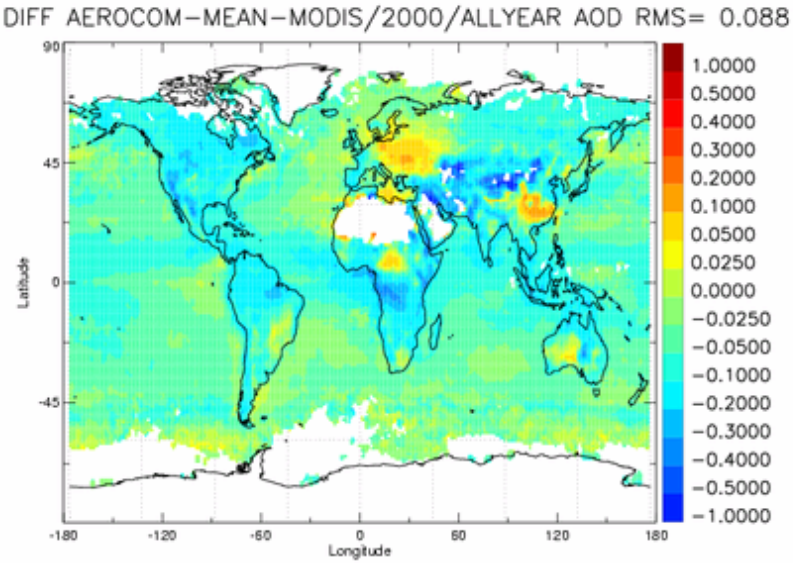
TAYLOR

Timeseries

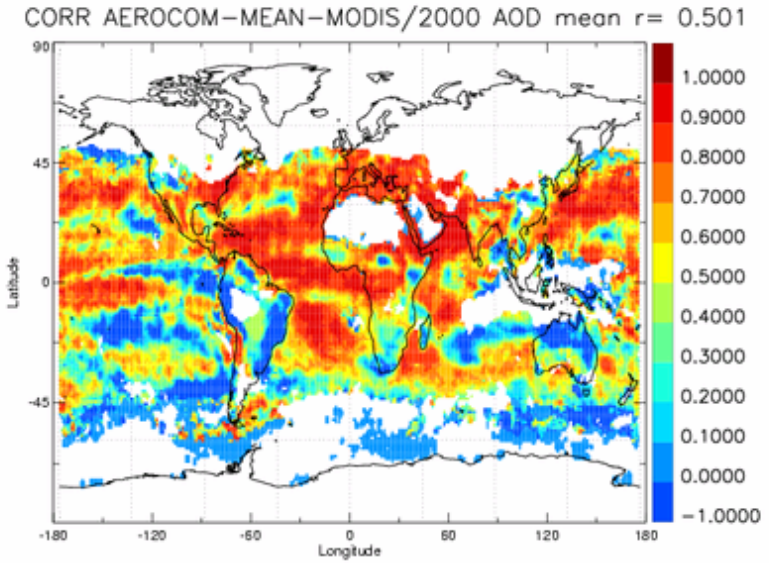
Explanations at the bottom of the synthesis web site



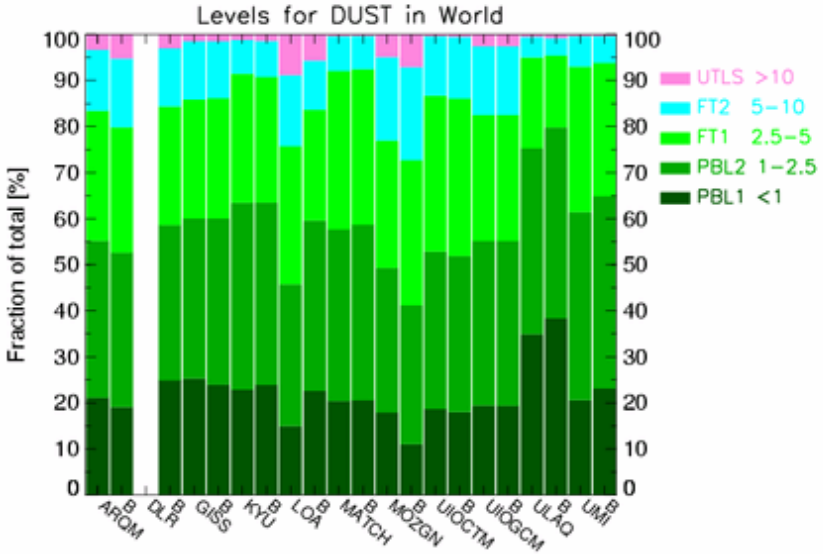
DIFF | AEROCOM-MEAN | AER | OD550-MODIS2000 | WORLD | an2000



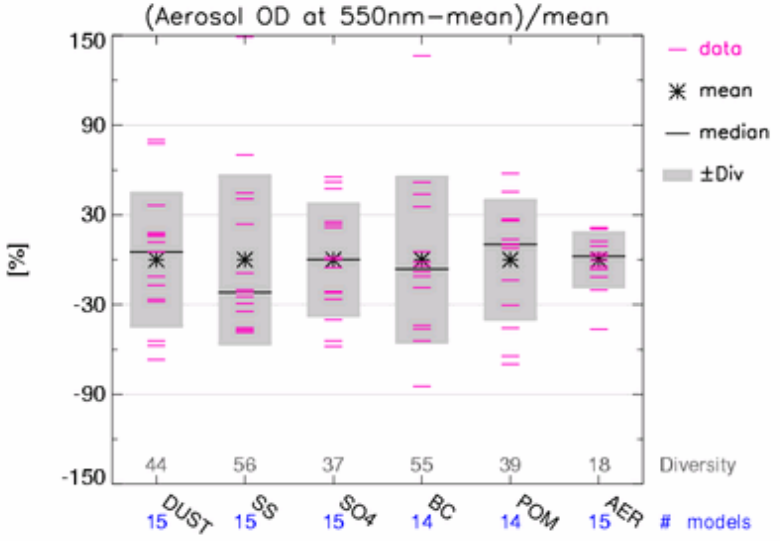
CORR | AEROCOM-MEAN | AER | OD550-POLDER1997 | WORLD | an2000



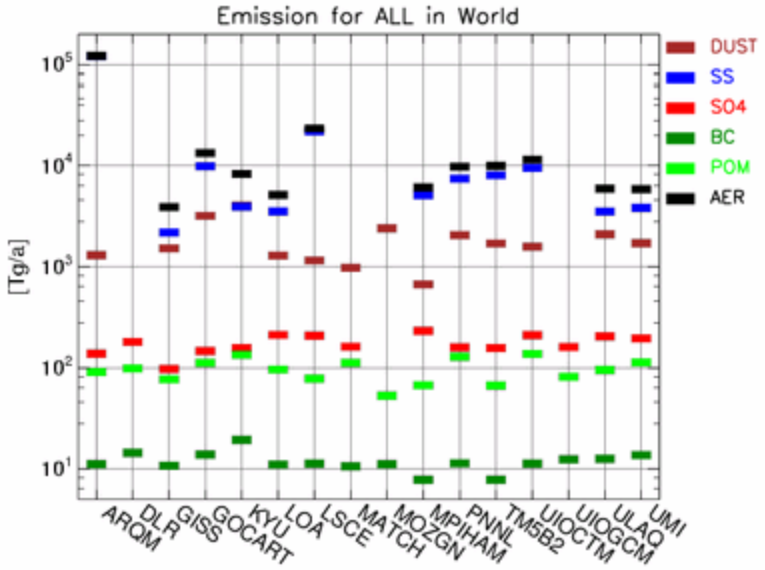
Fraction | EXPAB | DUST | Level | WORLD | an2000



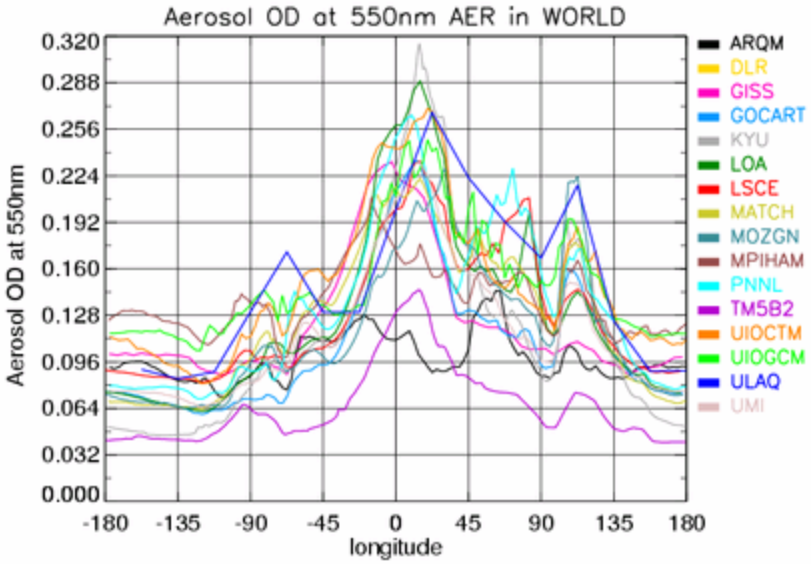
StatStdDev | AEROCOMA | ALL | OD550 | WORLD | an2000



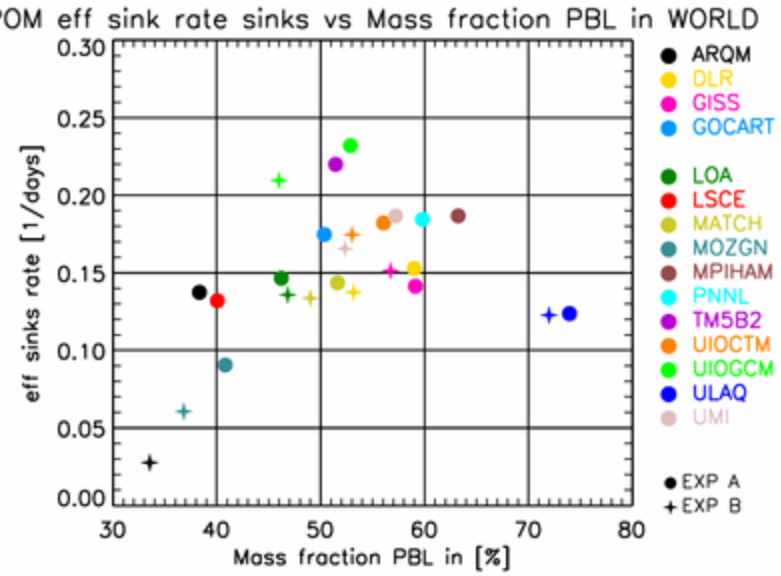
Mean | AEROCOMA | ALL | Emi | WORLD | an2000



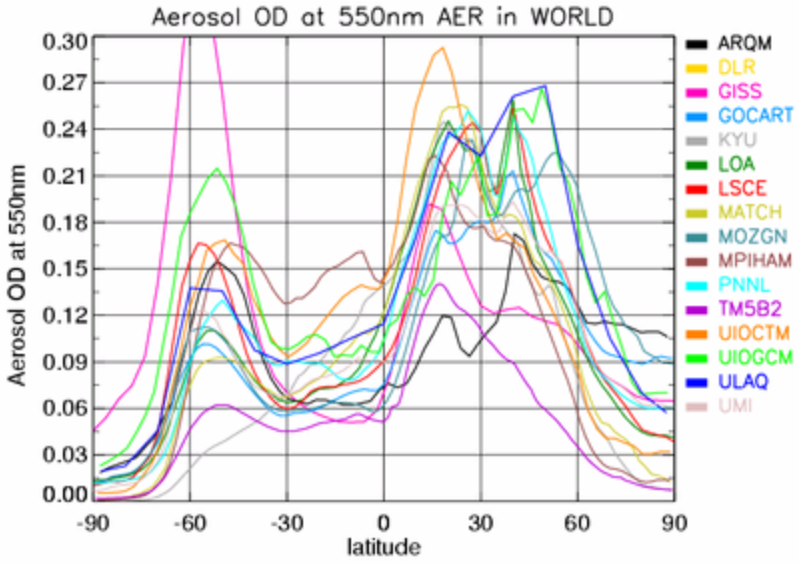
Merid | AEROCOMA | AER | OD550 | WORLD | an2000



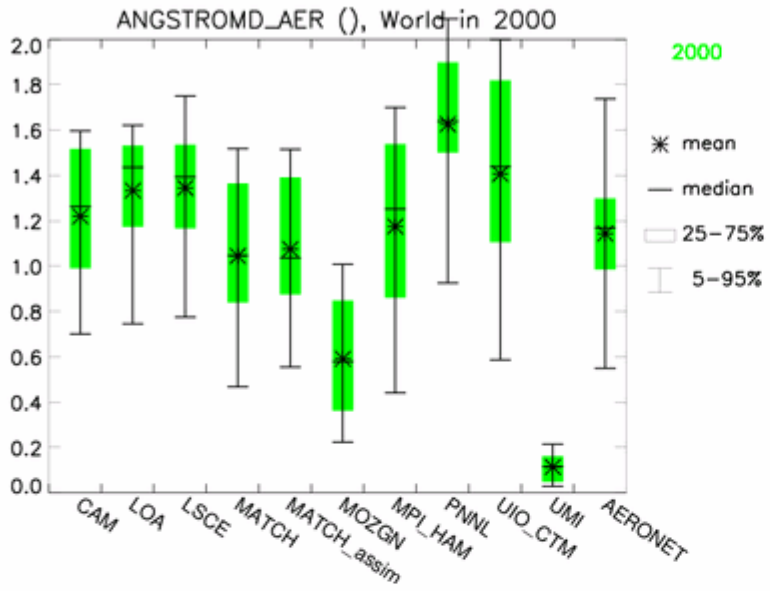
SCAT | ALL | POM | Ksinks-LoadPBLF | WORLD | an2000



Zonal | AEROCOMA | AER | OD550 | WORLD | an2000

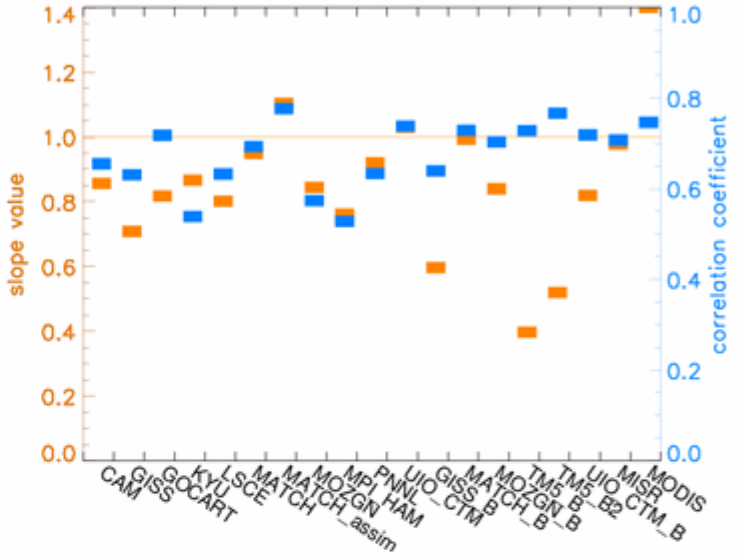


SURFOBS | AEROCOMA | AER | ANGSTROMD | WORLD | an2000

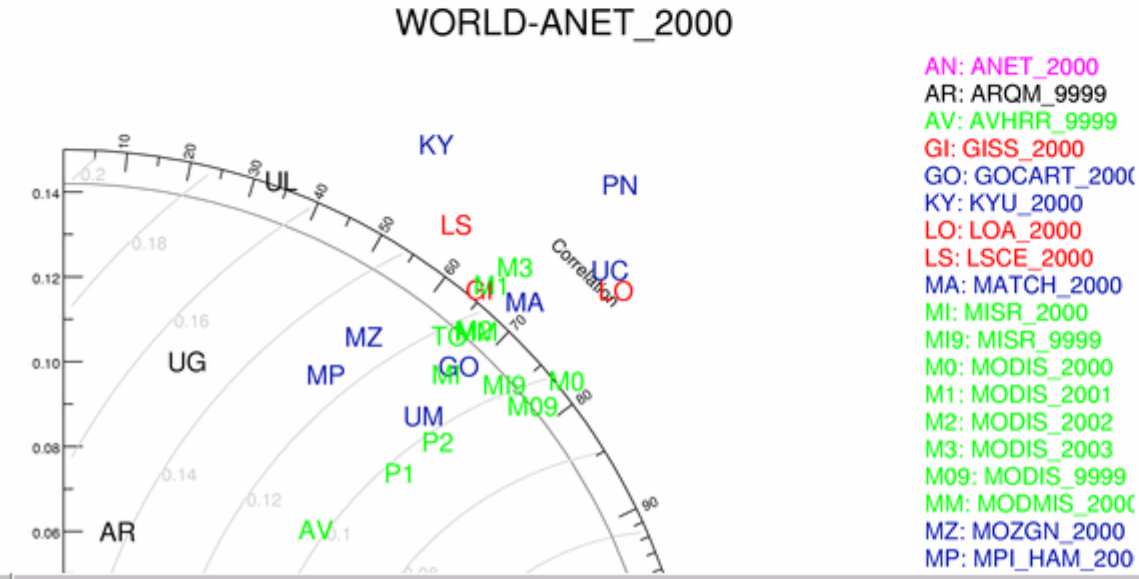


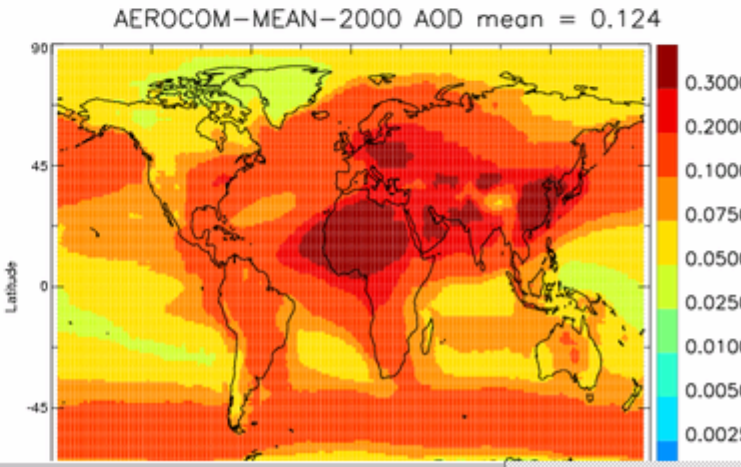
TAYLOR | AERONET | AER | OD550-ALL | WORLD | an2000

SCATCOEF | ALL | AER | OD550 | WORLD | an2000



MAP | AEROCOM-MEAN | AER | OD550 | WORLD | an2000





Topics to discuss

- Suggestions ?
- Public area / Password protection ?
- AeroCom products on-line ?
  - emissions
  - AeroCom median fields
  - Aerosol climatology…
- Feedback please !!