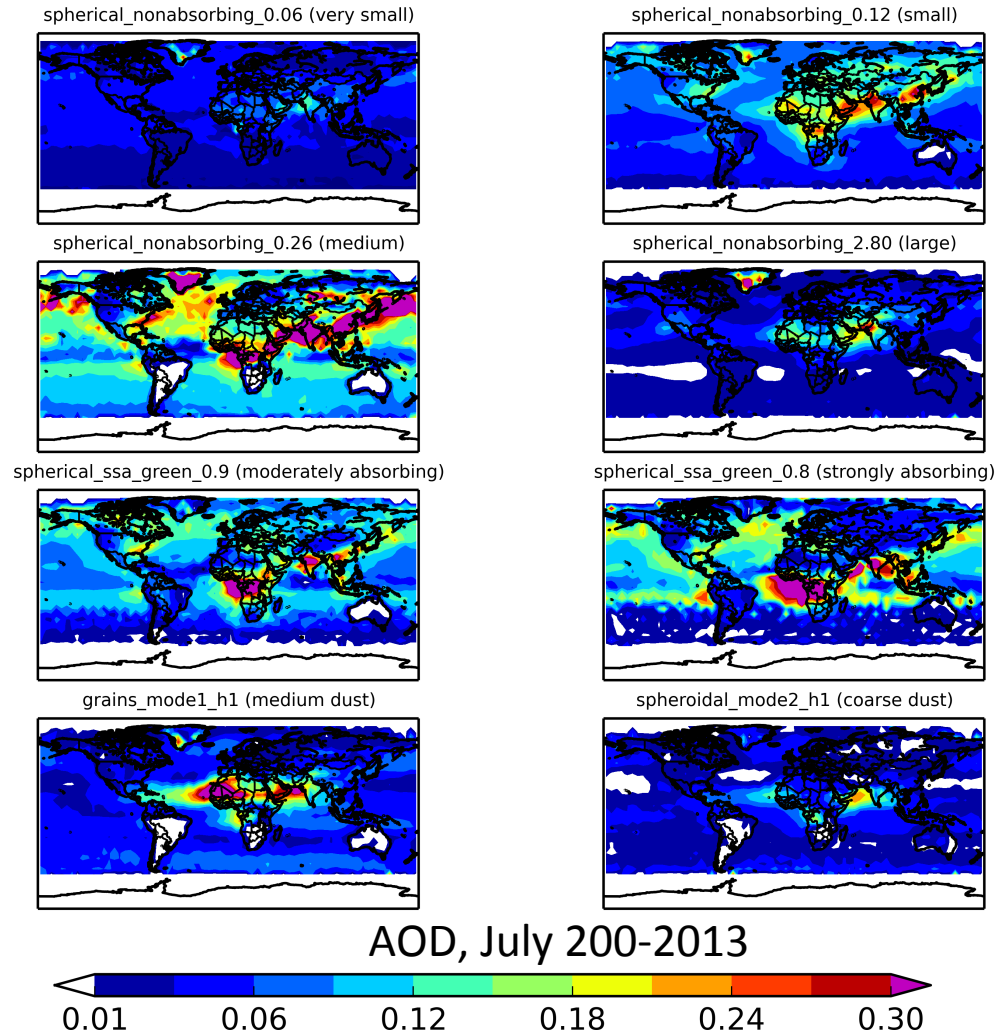


# MISR L3 Joint Aerosol (JOINT\_AS)

- Global statistical summaries of MISR Level 2 aerosol optical depth by particle type: multivariate histograms.
- Resolution: 5 x 5 degrees & monthly
- Key information: marginal distributions of 8 aerosol types and covariance matrix between different types.

8 types: spherical nonabsorbing (4 sizes), spherical absorbing (moderate and strongly), and nonspherical dust (medium and large)



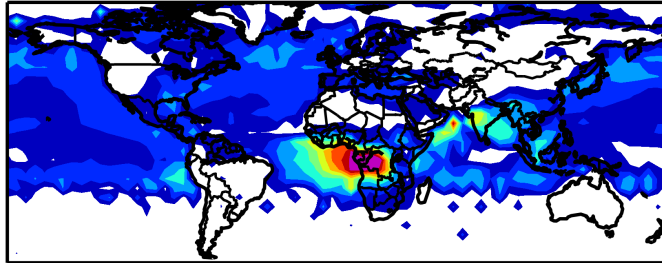
## 8 types aerosol in MISR -> 4 types in SPRINTARS

MISR	SPRINTARS
strongly absorbing aerosols	carbonaceous aerosols
medium + coarse dust	dust
very small + small + medium non absorbing aerosols	sulfate
Coarse non-absorbing?	Sea-salt ?

- Moments of the AOD in SPRINTARS were calculated at 5°x5° MISR grid points.

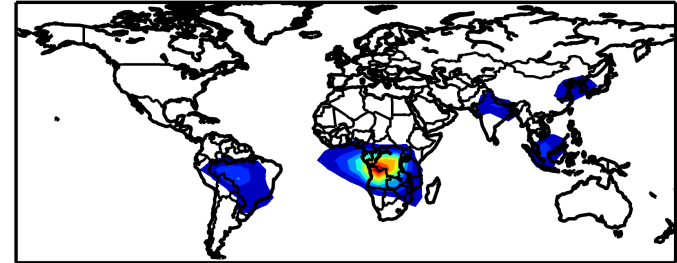
# Carbonaceous aerosols

carbonaceous [MISR]

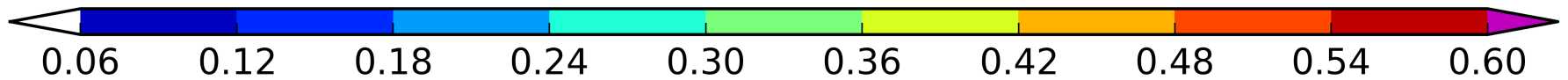


AOD, July 2000-2013

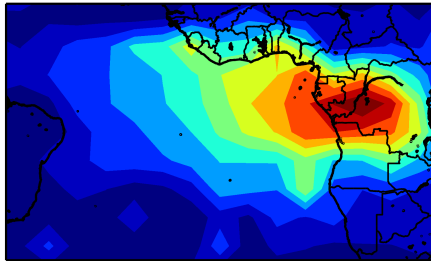
carbonaceous [NICAM]



AOD, July 2008

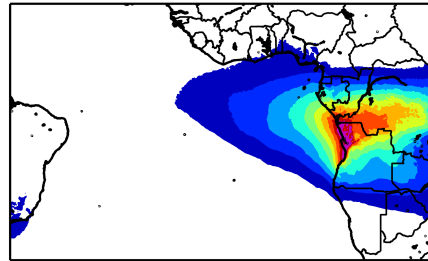


strongly absorbing [MISR]

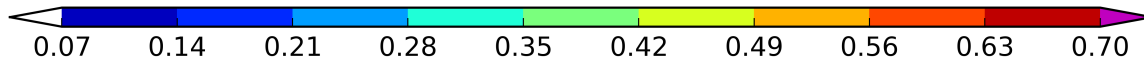


AOD, July 2000-2013

carbonaceous [NICAM]



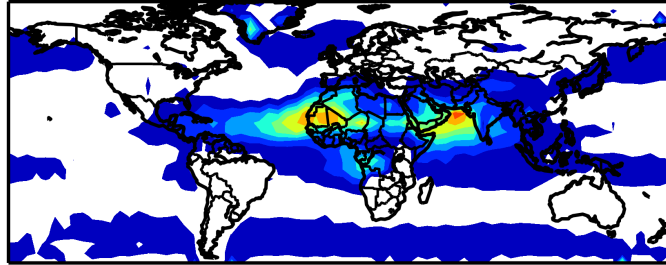
AOD, July 2008



MISR AOD distributions and values of the strongly absorbing aerosols are comparable to SPRINTARS AOD of carbonaceous aerosols

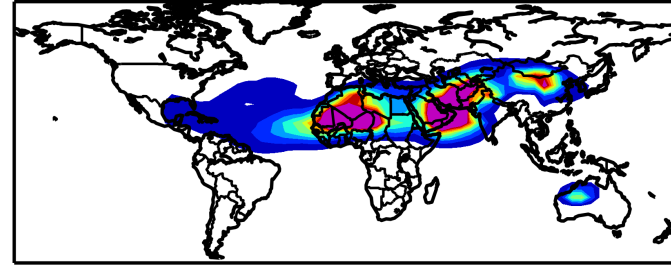
# Dust aerosols

dust [MISR]

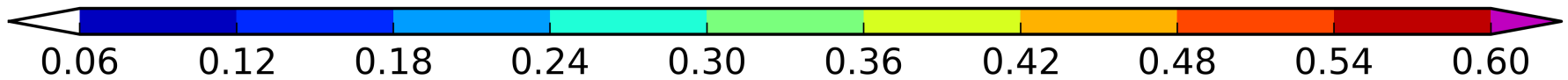


AOD, July 2000-2013

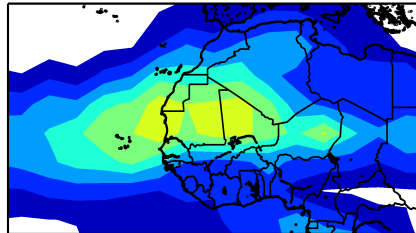
dust [NICAM]



AOD, July 2008

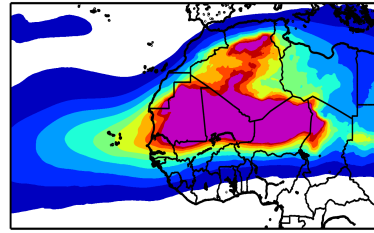


medium + coarse dust [MISR]

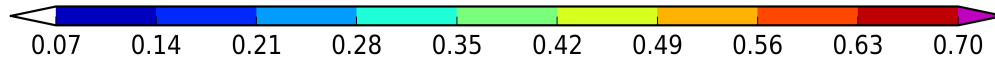


AOD, July 2000-2013

dust [NICAM]



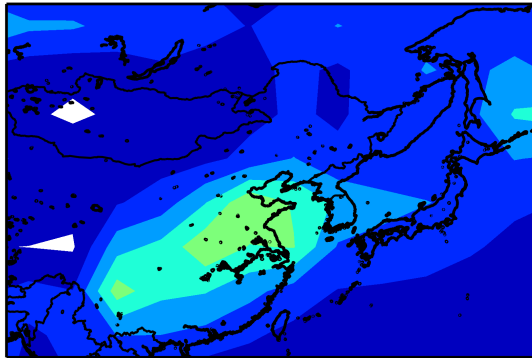
AOD, July 2008



- MISR AOD distributions of dust aerosols are comparable to SPRINTARS dust AOD
- MISR AOD values are significantly lower than those of SPRINTARS

# Sulfate aerosols in East Asia

very small + small non abs. [MISR]



sulfate [NICAM]

