



ILMATIETEEN LAITOS
METEOROLOGISKA INSTITUTET
FINNISH METEOROLOGICAL INSTITUTE

Can merged AOD L3 monthly product (1996-2017) be extended back to 1979 with TOMS AOD?

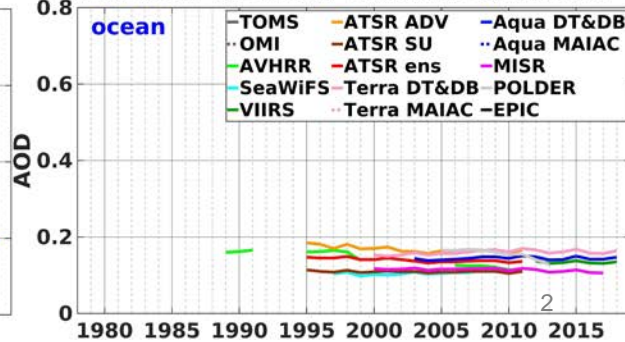
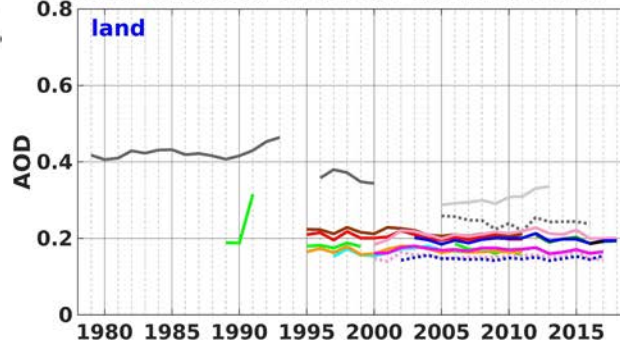
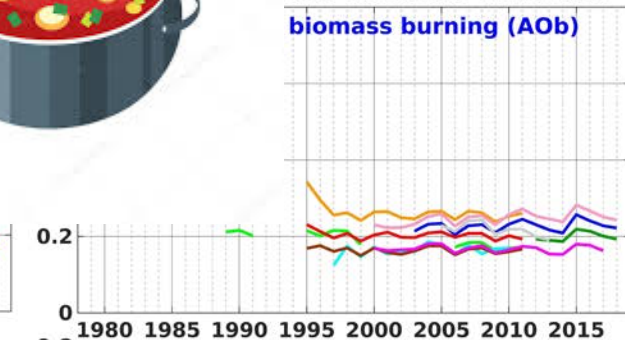
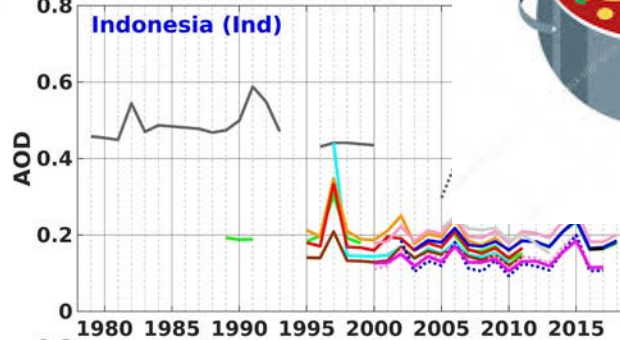
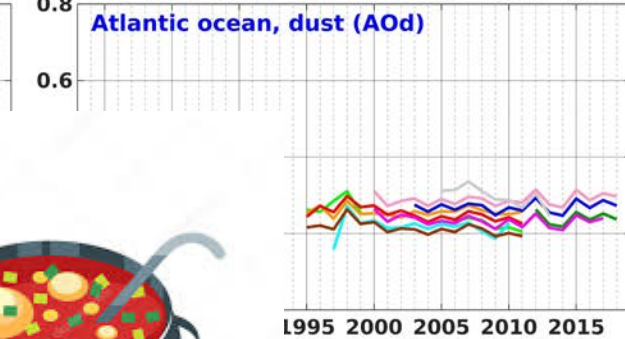
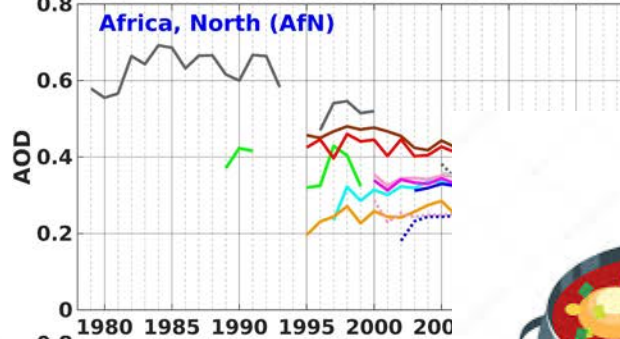
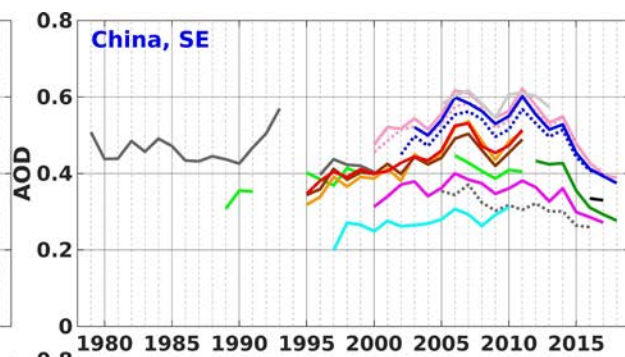
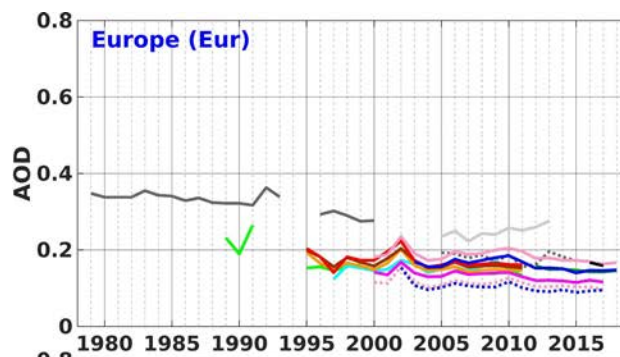
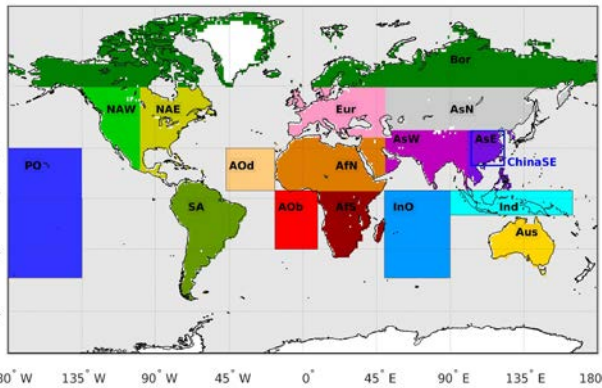
Larisa Sogacheva & AEROSAT team,
Pekka Kolmonen, Antti Arola
FMI

30.9.2019

AEROCOM/AEROSAT, 2019, Barcelona



Annual AOD, all products



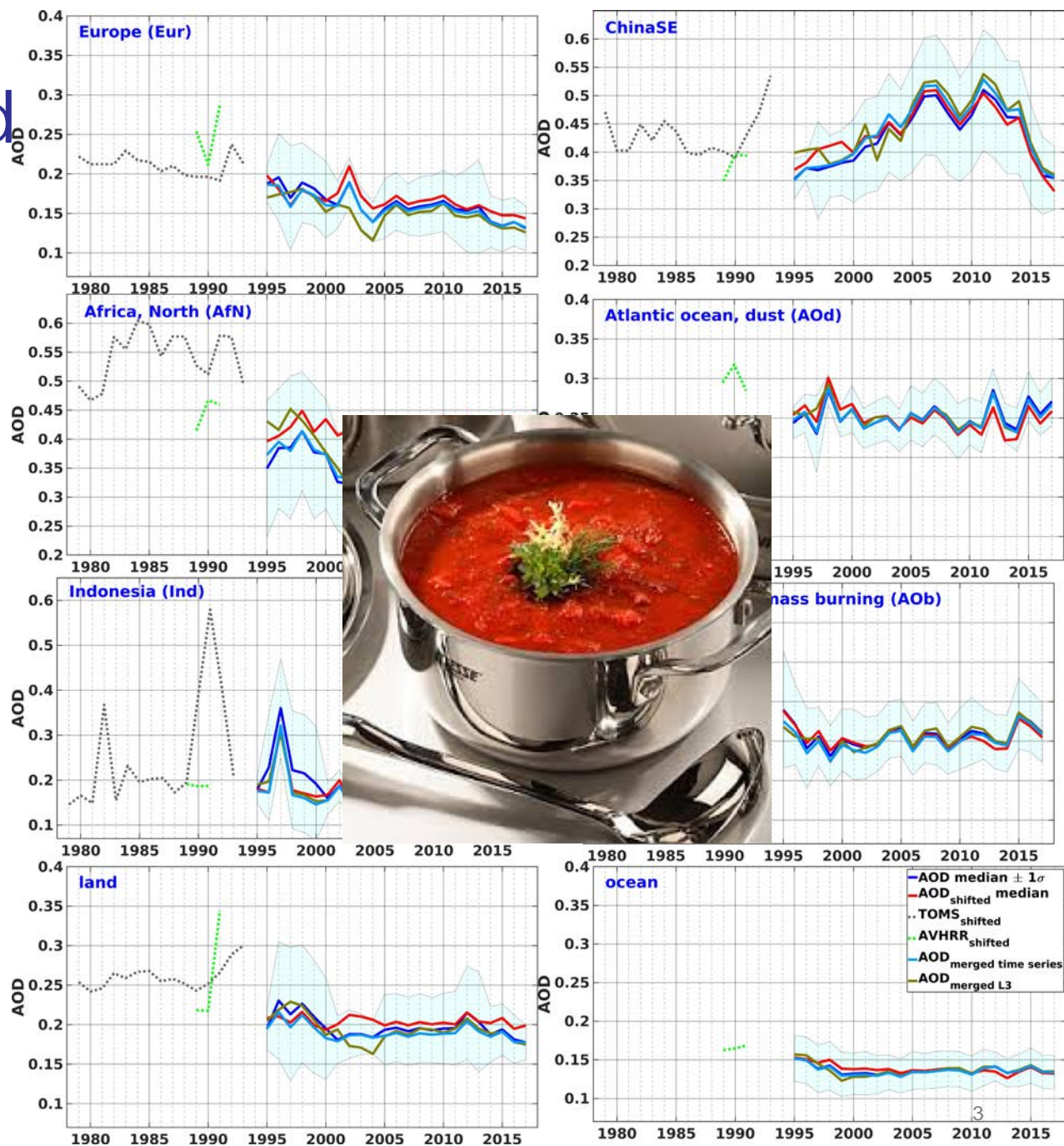
- TOMS
- OMI
- AVHRR
- SeaWiFS
- VIIRS
- ATSR ADV
- ATSR SU
- ATSR ens
- Terra DT&DB
- Terra MAIAC
- Aqua DT&DB
- Aqua MAIAC
- MISR
- POLDER
- EPIC

Sogacheva et al.,
2019, ACPD

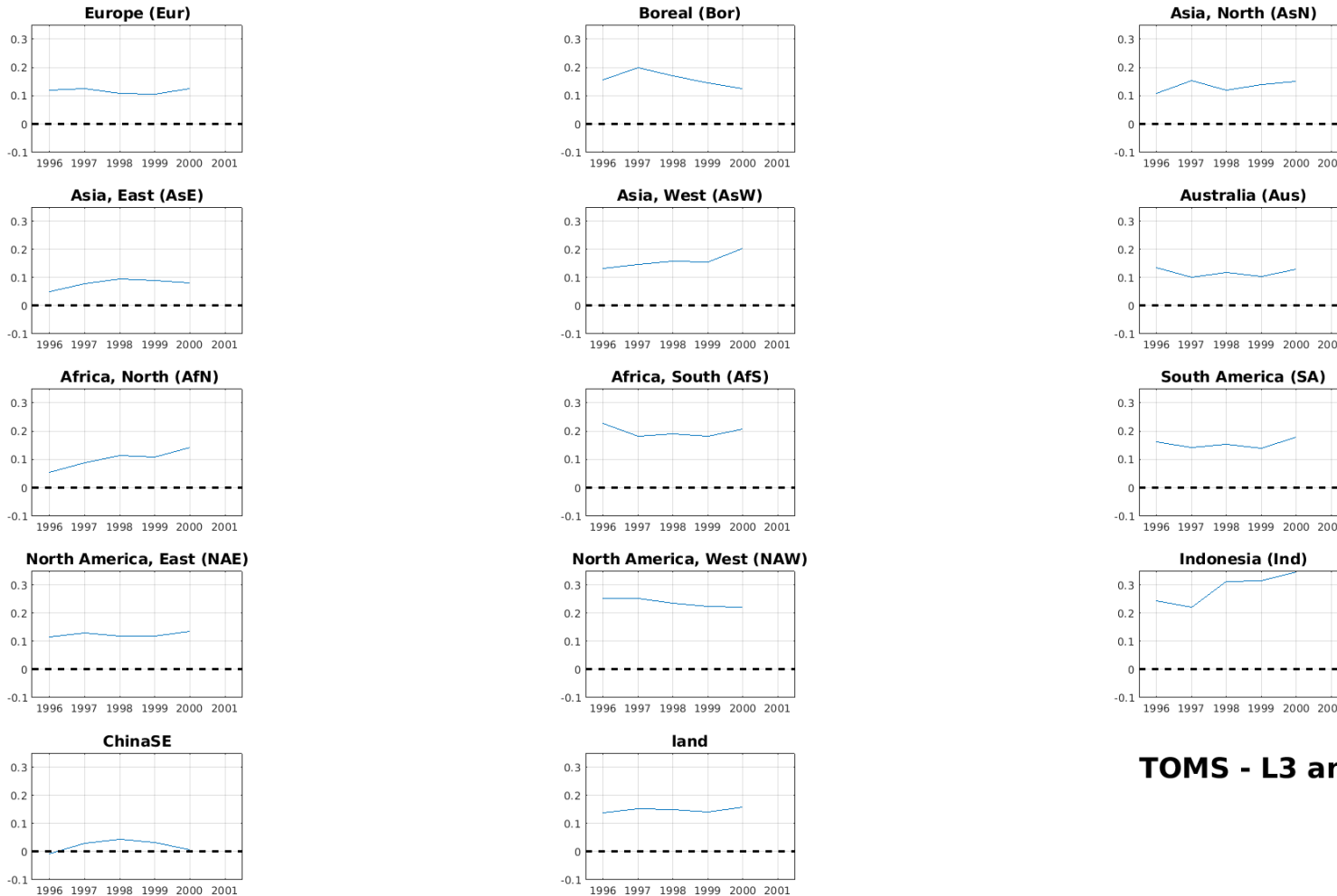
TOMS shifted to ATSR_ens (1979-1993), merged AOD (1995-2017)



Sogacheva et al.,
2019, ACPD

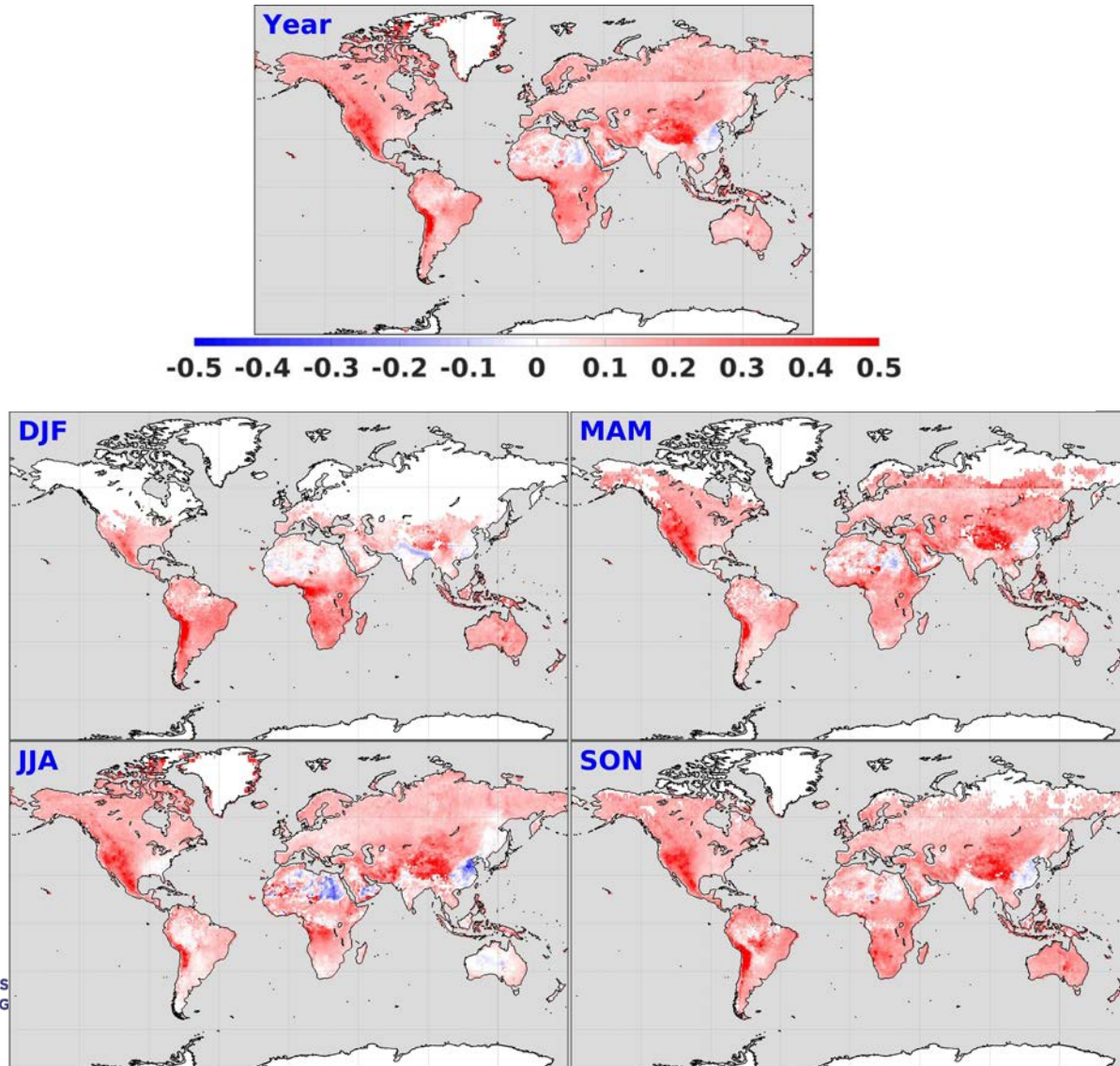


TOMS-merged AOD, annual time series

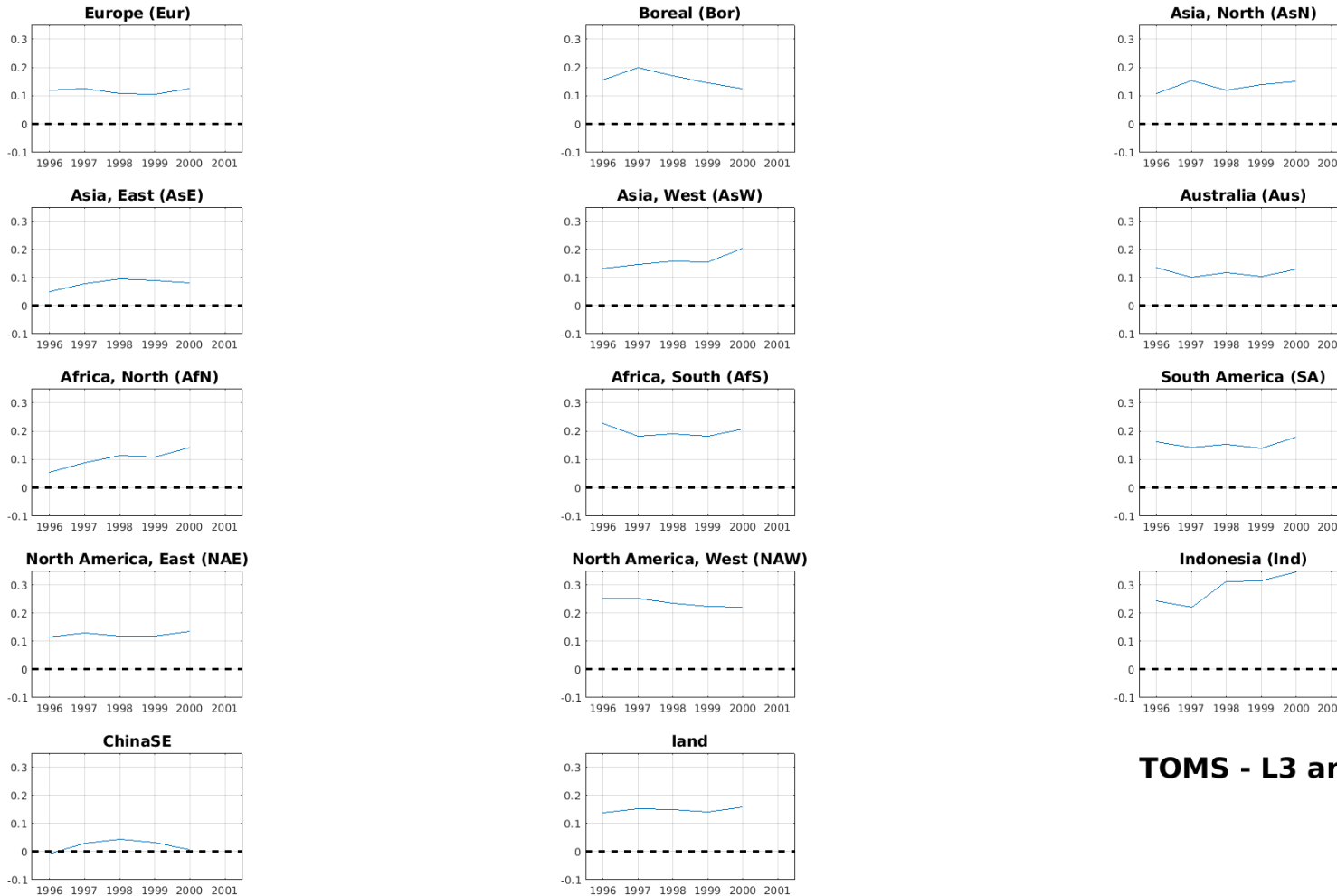


TOMS - L3 annual merged AOD

TOMS-merged seasonal/annual AOD

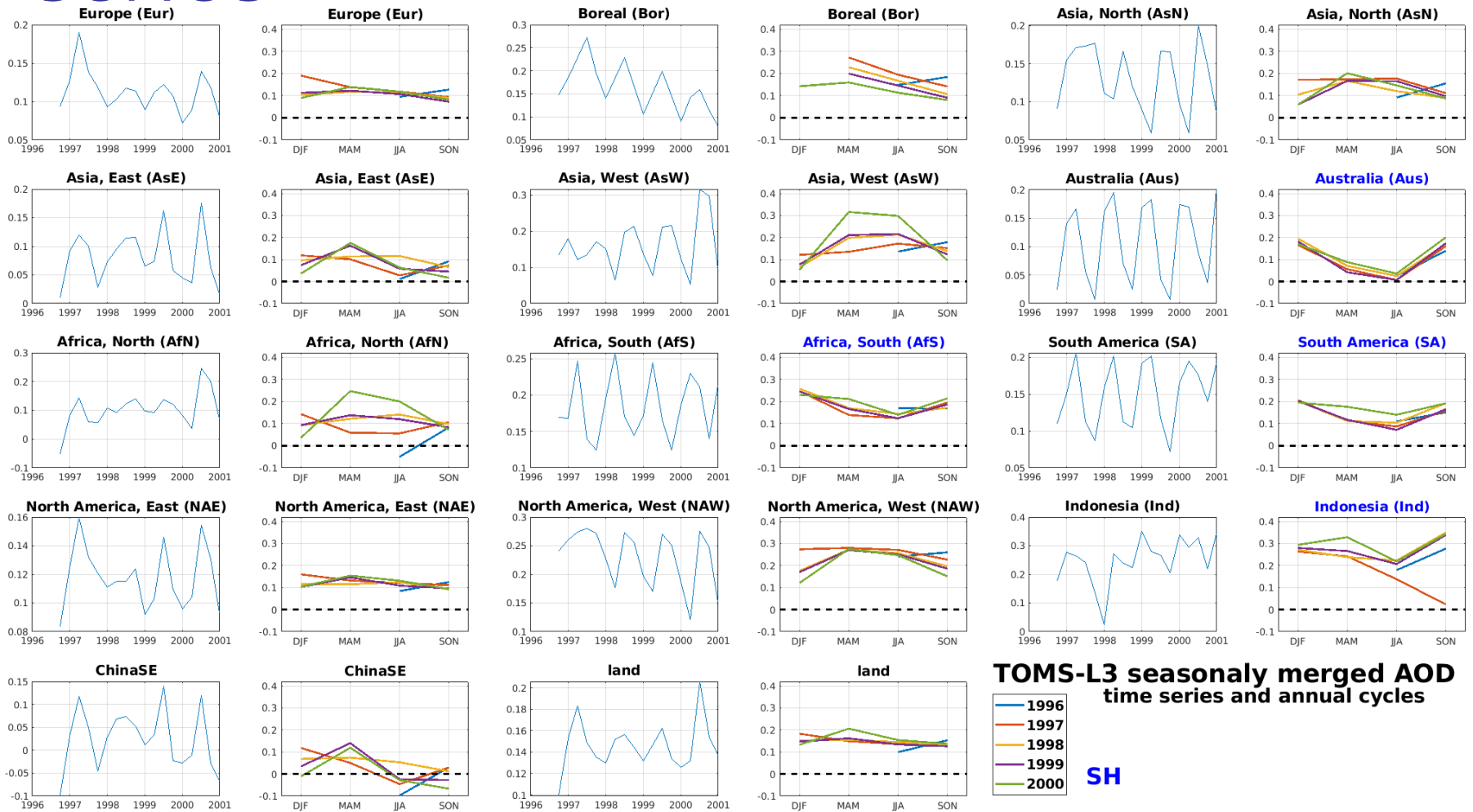


TOMS-merged AOD, annual time series



TOMS - L3 annual merged AOD

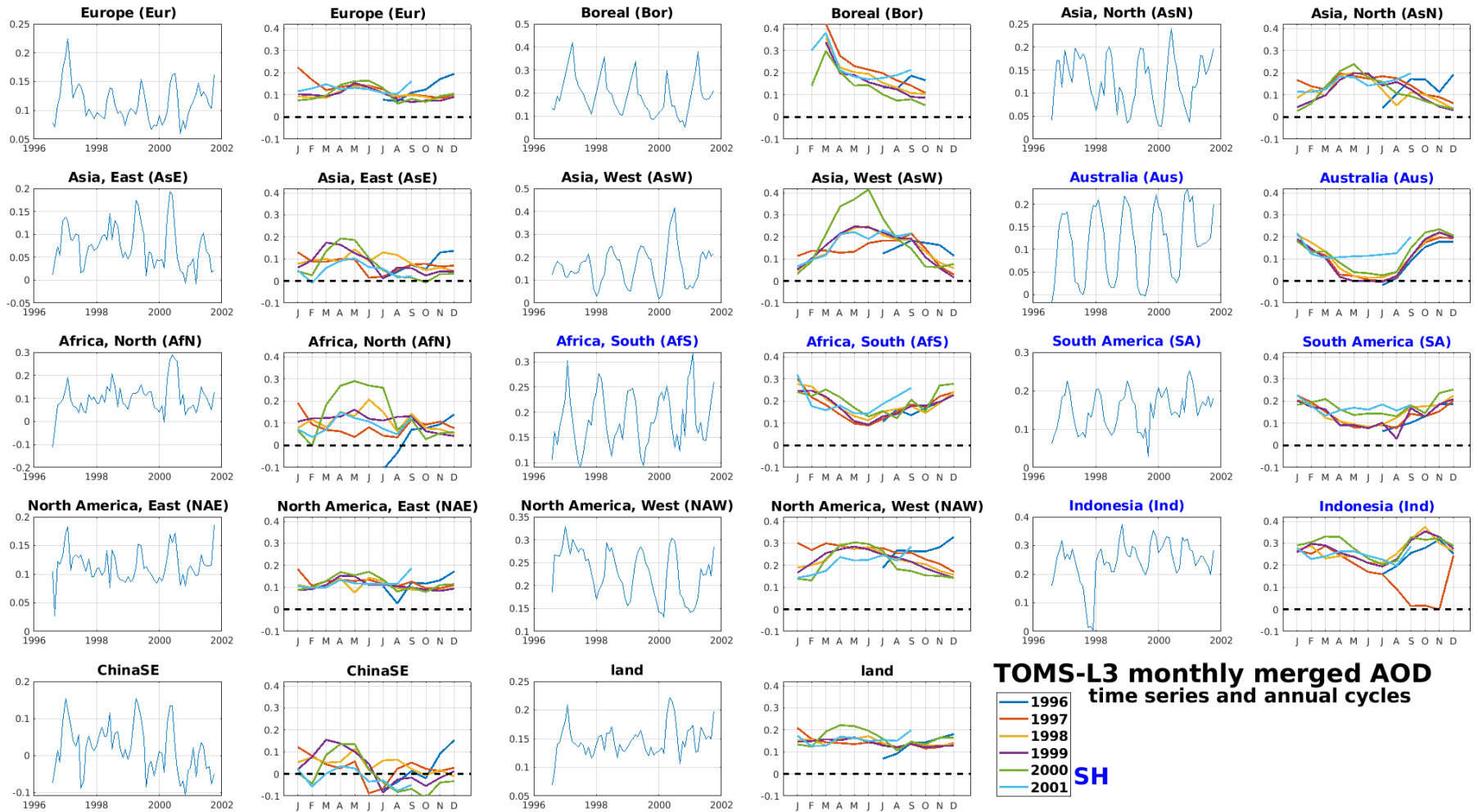
TOMS-merged AOD, seasonal time series



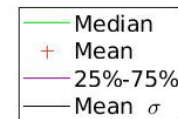
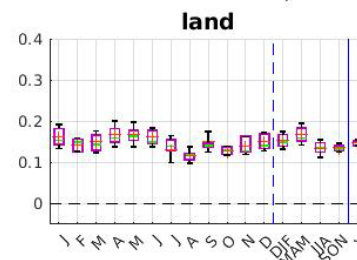
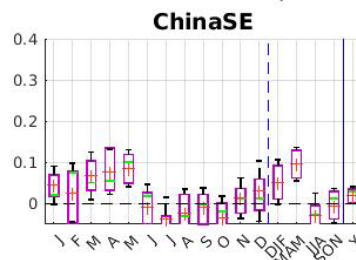
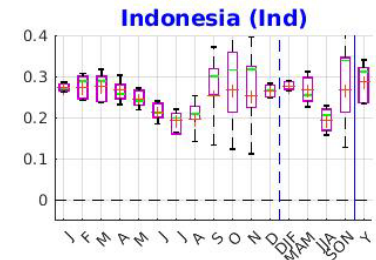
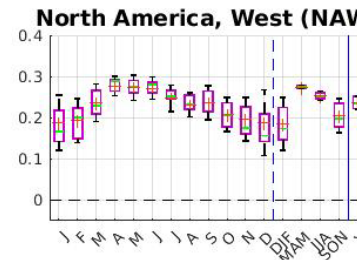
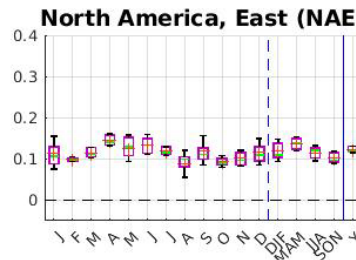
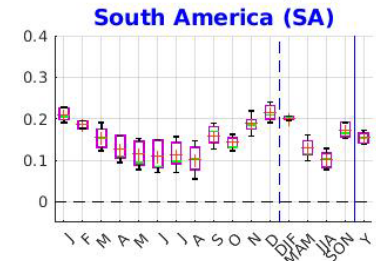
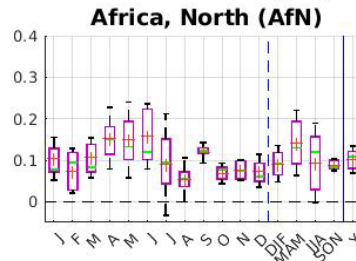
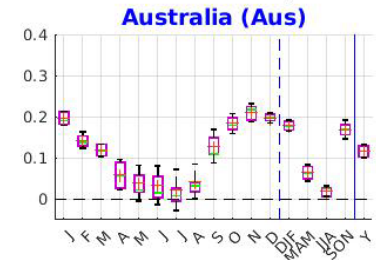
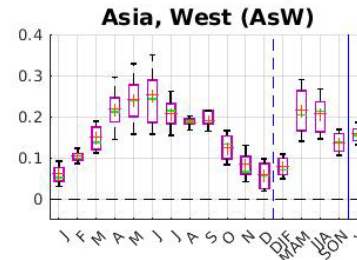
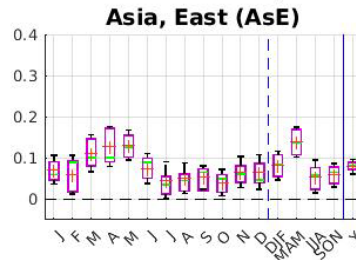
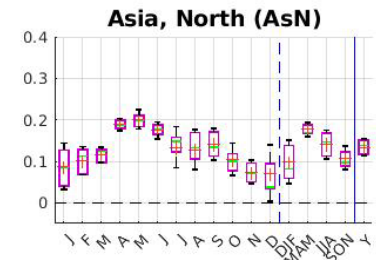
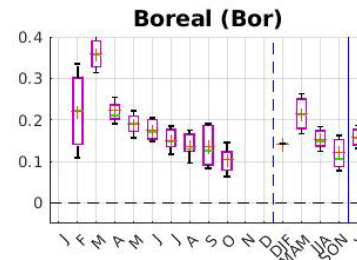
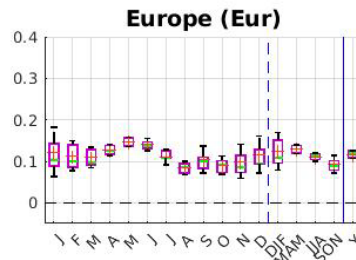
TOMS-L3 seasonally merged AOD time series and annual cycles

SH

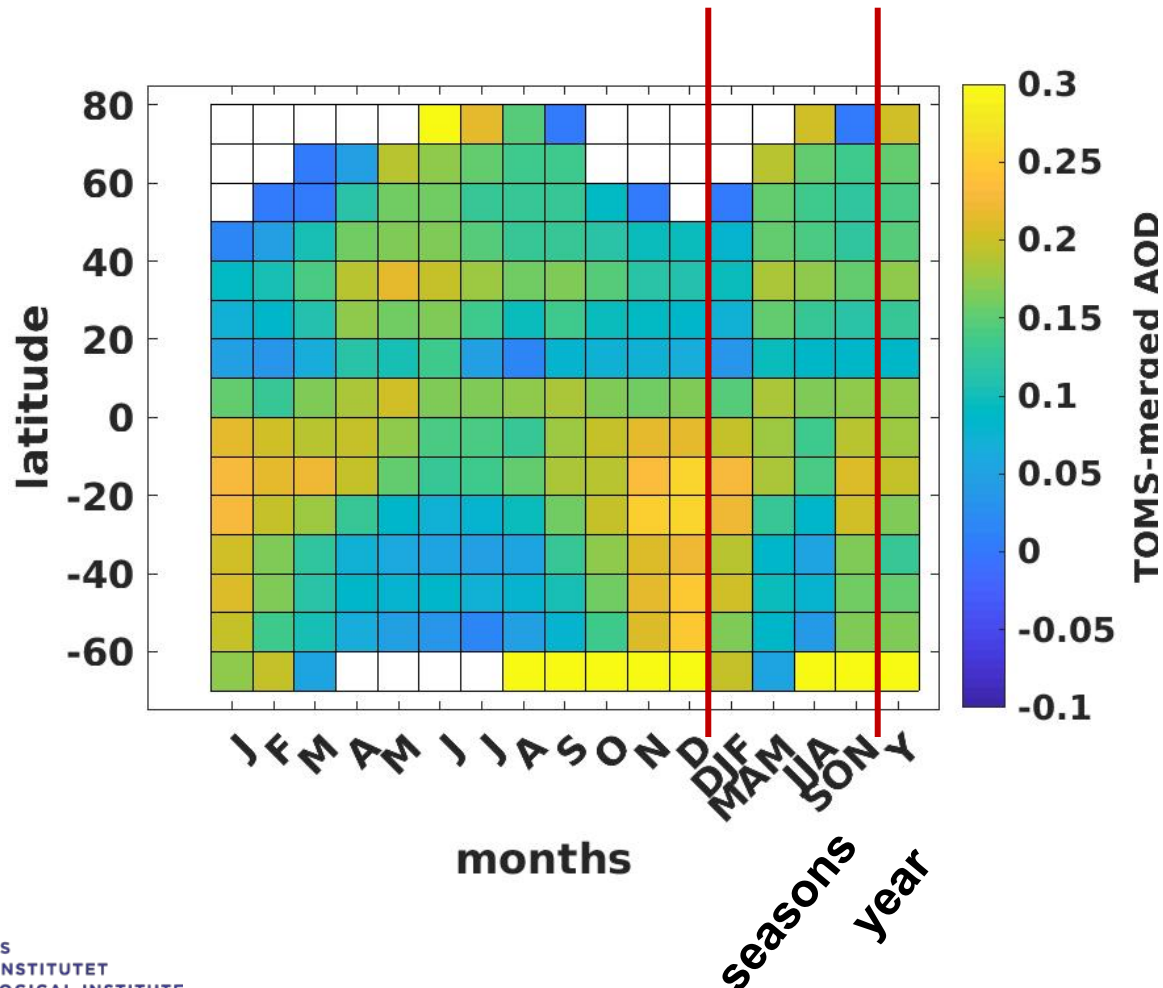
TOMS-merged AOD, monthly time series



Monthly/ Seasonal/ Annual variation of the offset

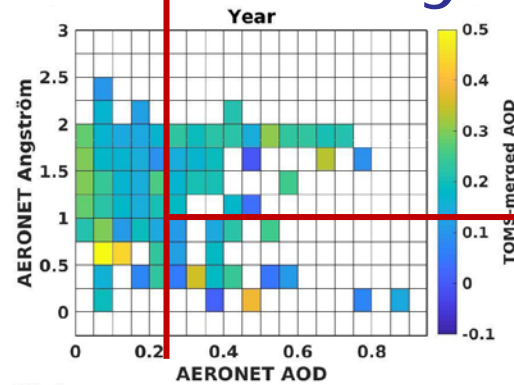


Monthly/seasonal/annual offset as a function of Å and AOD



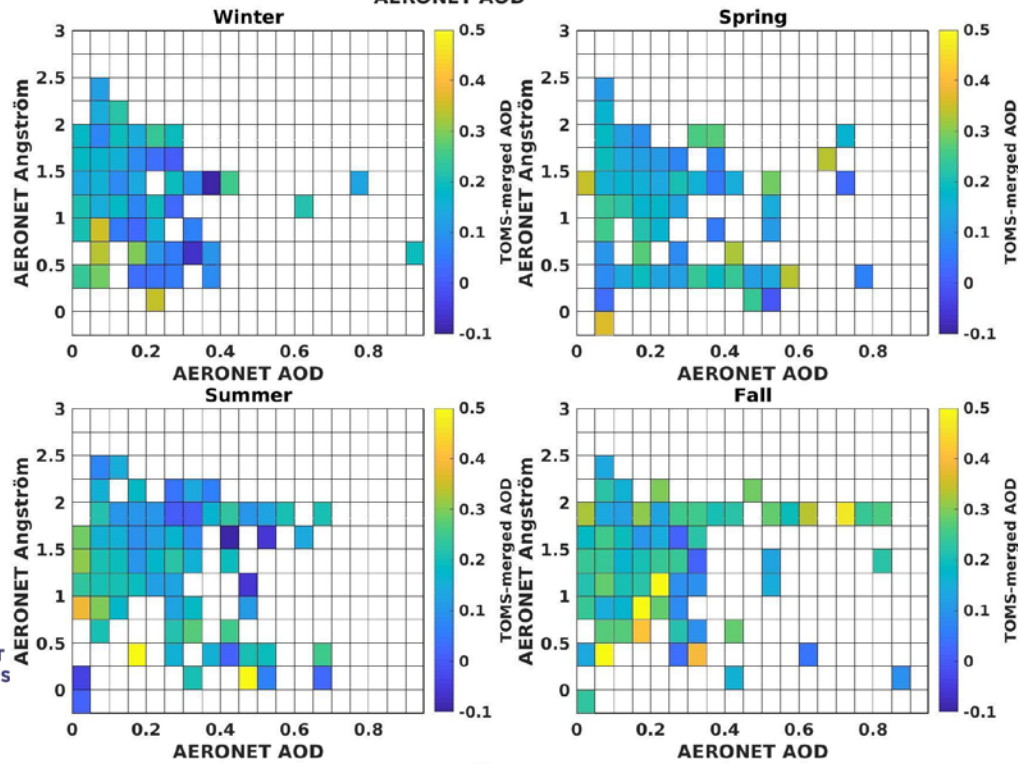
Offset as a function of Å and AOD monthly

back-ground

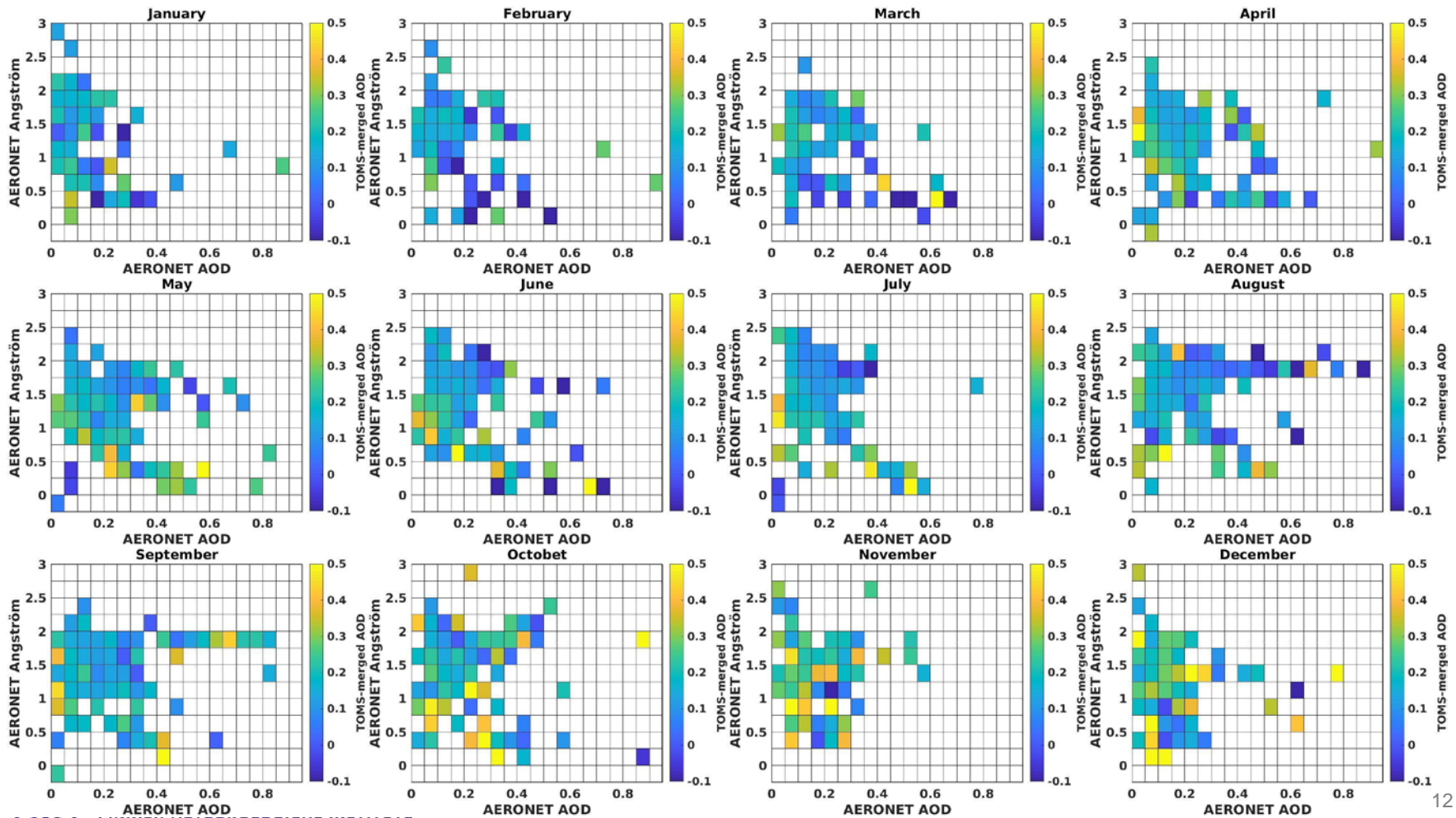


fine-dominated

coarse-dominated



Offset as a function of Å and AOD monthly





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Thank you for your attention!

??? Questions ???
Discussion

30.9.2019



TOMS-merged monthly AOD, monthly AOD

