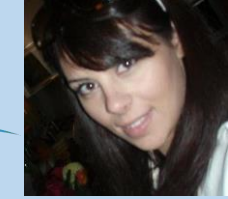
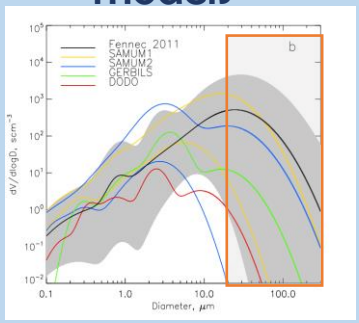
A MODELING INSIGHT INTO THE TRANSPORT OF DUST PARTICLES

Eleni Drakaki*, Vassilis Amiridis, Alexandra Tsekeri, Stavros Solomos, Antonis Gkikas, Emmanouil Proestakis, Christos Spyrou, Sotirios Mallios, Eleni Marinou, Claire L. Ryder, and Petros Katsafados



LARGE DUST PARTICLES TRAVEL LONG DISTANCIES

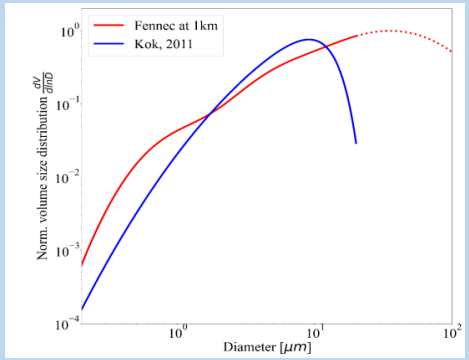
Missing from models



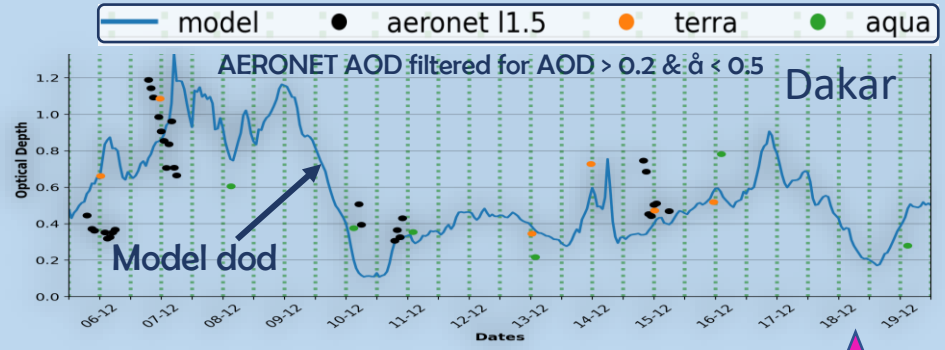


WRF-CHEM

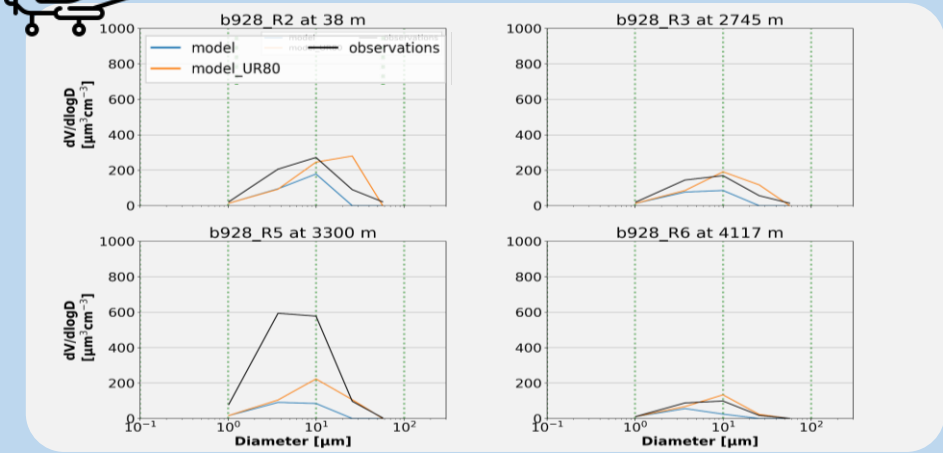
Bins	r_{eff} (μm)
1	0,51
2	1,85
3	5,0
4	12,9
5	28,6



Replace Stokes's dust settling scheme (SC)
Updated dust SC valid for Re > 1



(AER-D flight b928 16-08-2015)

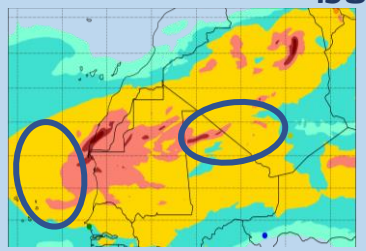


CONCLUSIONS

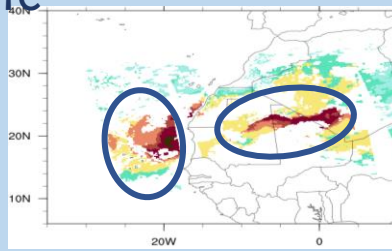
Preliminary model results suggest 80% reduction of settling velocities for better comparison with measurements.

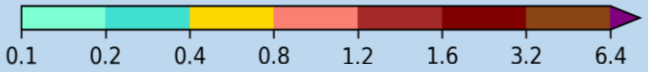
15-08-2015 15UTC

MODEL

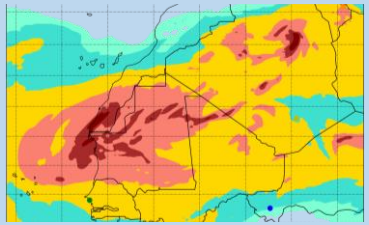


MODIS DOD

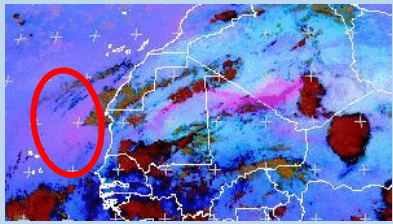




MODEL UR 80



SEVIRI DUST RGB



FUTURE WORK

Towards realistic shape representations



Both on dynamics & radiation