A 10-year regional reanalysis of desert dust aerosol at high spatial resolution

Enza Di Tomaso, Jerónimo Escribano, Paul Ginoux, Sara Basart, Francesca Macchia, Francesca Barnaba, Miguel Castrillo, Paola Formenti, Oriol Jorba, Lucia Mona, Gilbert Montané Pinto, Michail Mytilinaios, Vincenzo Obiso, Nick Schutgens, Athanasios Votsis, Ernest Werner, and Carlos PérezGarcía-Pando*

Barcelona Supercomputing Center

We have produced a complete and consistent, four-dimensional, regional reconstruction of desert dust in a recent decade

- ✓ Unprecedented **high resolution**: 0.1° latitude × 0.1° longitude
- ✓ Specific **dust observational constraint** (DOD from MODIS DB L2) on the MONARCH model by means of a LETKF
- ✓ **Uncertainty estimates** in the reanalysis output
- ✓ Data set output linked to specific **air quality** and **climate services**

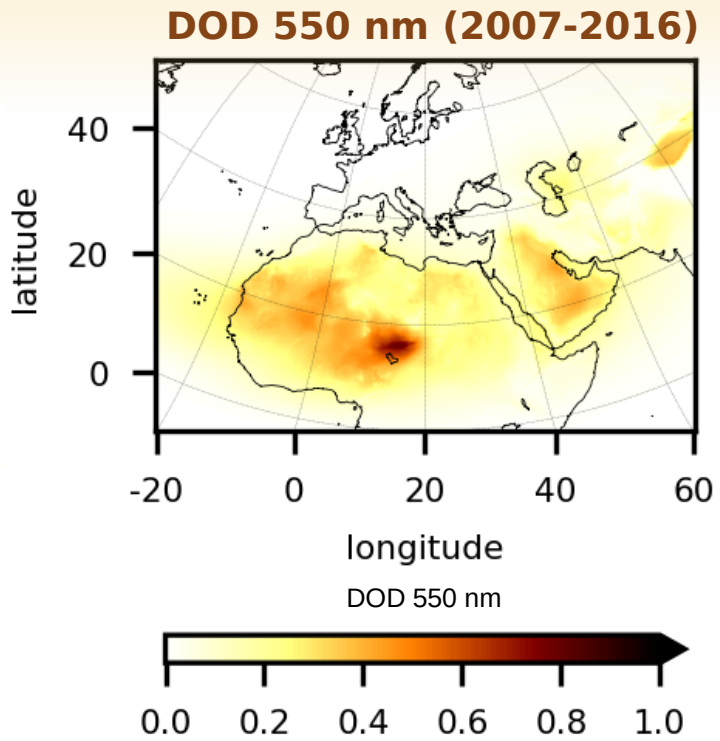

Fig 1: Decadal mean analysis

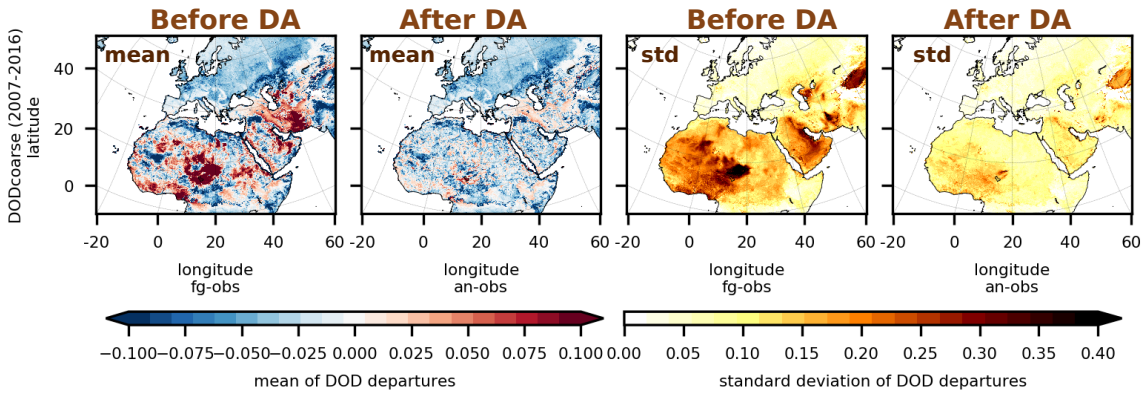

Fig 2: Departures from assimilated observations

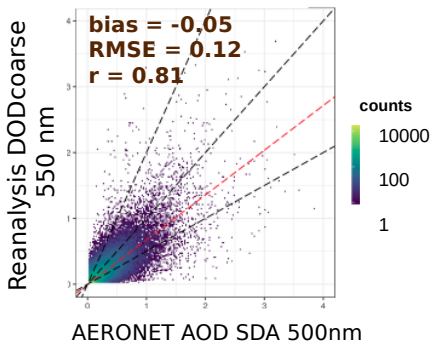

Fig 3: Independent validation

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