## Climate and Aerosol Microphysics in NASA GEOS-5

Peter Colarco<sup>1</sup>, Jamison Smith<sup>2</sup>, Cynthia Randles<sup>1,3</sup>, Arlindo da Silva<sup>4</sup>

<sup>1</sup>NASA GSFC Code 613.3, <sup>2</sup>LASP/University of Colorado, <sup>3</sup>GEST/UMBC, <sup>4</sup>NASA GSFC Code 610.1

We have previously introduced **GOCART** aerosols **online** and **radiatively coupled** in the NASA GEOS-5 climate model

Here we show first simulations of dust and sea salt aerosols in GEOS-5 with an embedded aerosol microphysical model (CARMA)

We explore different configurations of our online system:

- GOCART driven by assimilated meteorology
- GOCART run in climate mode
- GOCART but with CARMA dust/sea salt in climate mode



