Phytoplankton composition algorithms for PACE
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Objective:
“Attempt to develop relationships between water leaving radiances and phytoplankton composition using a radiation model, in situ data, and an established global biogeochemical model"

This is achieved by:
1. Use the Ocean-Atmosphere Spectral Irradiance Model (OASIM) to generate water leaving radiances for individual and assemblages of phytoplankton functional groups, as well as other optically active constituents (water, detrital material, CDOM, and particulate inorganic carbon)
2. Use in situ phytoplankton composition data to develop an algorithm(s) and derive bias and uncertainty statistics
3. Use the NOBM to simulate a real environment, validate the algorithm and assess bias and uncertainty quantitatively

PACE Science Team Meeting - January 14-16th 2015 – College Park, MD
Data for a’s and b’s:
Connection to the rest of the team:

- Data on optical properties of phytoplankton, CDOM, detritus, PIC to further improve OASIM
- Validate Rrs with Rrs from the field
- Test algorithm using NOBM which will provide hyperspectral water leaving radiance similar to what PACE will observe
- Use the NOBM/OASIM models to test different band aggregation strategies