BOSS and FROUIN
Radiative products for the PACE era

**Objective:** Provide legacy radiative products + novel radiative products that are *useful*, state-of-the-art, validated and with known uncertainties on a pixel-by-pixel basis.

*Useful* ← based on inputs from likely users.

**Deliverables:**
- Level 2 & 3 $E_d(\lambda)$, $E_0(\lambda)$ & $A_s(\lambda)$ at $z=0^+$ and $z=0^-$ from 400-700nm every 5nm at satellite passage and daily-integrated.
- Band integrated PAR (400-700) and UVA(340-400) flux.
- Sub-surface radiative quantities or k-functions to compute them.
- Associated pixel-by-pixel uncertainties.
Results since our last meeting

- Developed preliminary algorithms to estimate daily mean $E_d(\lambda,0^+)$, $E_d(\lambda,0^-)$, $E_d(\lambda,0^-)$ and PAR-integrated fluxes from PACE observations at 5 nm resolution. Applied/tested algorithms to EPIC DSCOVR imagery.

- Evaluated $K_d$ algorithms:

![RT simulations with MERRA-2 data](image1)

![Satellite VS float Kd(490nm)](image2)
Synergies with other groups

Stramski/Loisel:
  Output of Hydrolight runs.
  Test use of hyperspectral IOPs in algorithm for AOPs.

Westberry and others:
  Phytoplankton absorption of PAR (APAR).

All team: measurements of radiative quantities and AOPs to test products with.