Data Management Plan

Since this will be an NSF-funded project that will be interfacing with the NASA-funded EXPORTS program, we will disseminate and share all research results in compliance with both the NSF and the NASA Earth Science data policies. We will submit our data to both the NSF-supported Biological and Chemical Oceanography Data Management Office at WHOI as well as to the NASA-supported SeaWiFS Bio-optical Archive and Storage System (SeaBASS), where EXPORTS data will be archived.

The following is a list of data that will be produced in the course of the project and that will be submitted to BCO-DMO and to SeaBASS:
At each of 6 pump depths per cast*12 casts/cruise*2 cruises (N~144 data points in total)
- Size-fractionated $(1-51\mu m, > 51\mu m)$ concentrations and 1 standard deviation uncertainties of:
  - Lithogenic particles
- Least squares estimates, including 1 standard deviation uncertainties, of:
  - Remineralization rate constant (β_{-1}) of small POC particles
  - Aggregation rate constants $(\beta, \beta_1, \beta_2, \beta_3)$ between small (1-51 µm) and large (>51 µm) particles for the following four formulations of aggregation
    - (F1) $A_k = \beta P_k$
    - (F2) $A_k = \beta_1 P_k^2$
    - (F3) $A_k = \beta_1 P_{k,S}^2 + \beta_2 P_{k,s} P_{k,l}$
    - (F4) $A_C = A_{Li} = \beta_3 P_{C,s} P_{Li,s}$
  - Disaggregation rate constants (β_{-2}) between large and small particles
  - Bulk sinking rates of 1-51 µm particles (w_s) and of > 51 µm particles (w_l)

PI Lam has a track record of submitting complete and fully documented results from NSF-funded work to BCO-DMO in a timely manner (http://www.bco-dmo.org/person/51146), and will work with SeaBASS data managers to do the same for results from this project. Likewise, co-PI Marchal has a track record of submitting model codes, whose development was supported by NSF, to NCDC of NOAA. Co-PI Marchal is in the process of submitting fully-documented Matlab code for the inverse model used for thorium scavenging to BCO-DMO. This is co-PI Lee's first proposal.