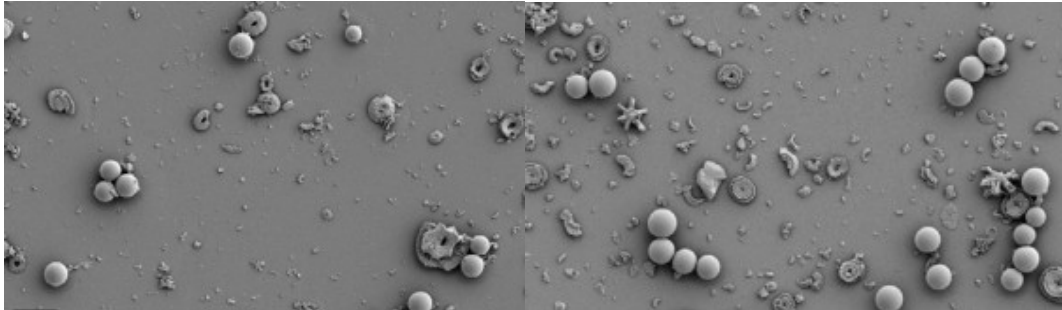




Attuning the labs: sample preparation affects past carbon budget estimates



To reconstruct the carbon budget in the past ocean we need realistic estimates of carbon export and accumulation derived from calcifying marine microorganisms. To obtaining data that is representative and comparable across laboratories, sites and time, sample preparation is a crucial step. When it comes to nannofossils, several methodological approaches have been used in order to quantify carbon and carbonate fluxes during the past 200 My. The “drop” technique has proven to be practical, reproducible and comparable to others in terms of results. Attuning the protocols in different labs is important to enable reliable reconstructions of the ocean carbon cycle.

The workshop will combine:

- A lecture highlighting the link between different nannofossil sample preparation techniques and estimates of the nannofossil-derived calcium carbonate and carbon export/accumulation in the oceans;
- practical preparation of nannofossil samples following the protocol of the “drop” technique;
- interactive round table of discussion on the issues and experience with estimating the past carbon budget, with the aim to share novel ideas for future collaborations on this specific topic.

Workshop will be held by:

Manuela Bordiga, National Institute of Oceanography and Applied Geophysics – OGS, Trieste (Italy)

Miloš Bartol, Geological Survey of Slovenia, Ljubljana (Slovenia)

Coordinated by:

Laura Bronzo, Earth Science Department – University of Pisa (Italy)