

IMBER Special Session: Tracers at the ocean mesoscale and submesoscale

Conveners:

Javier Arístegui – University of Las Palmas de Gran Canaria, Spain (Vice-Chair, IMBER)

Xosé A. Álvarez Salgado – IIM-CSIC, Vigo, Spain (IMBER-Spain)

Antonio Tovar Sánchez – IMEDEA, Mallorca, Spain (IMBER- Spain)

Mesoscale and submesoscale processes play a key role in the vertical and lateral exchanges of water and biogeochemical properties across ocean interfaces. Observations and modelling studies suggest that processes at these scales greatly influence the carbon cycle in the ocean, enhancing primary production and carbon sequestration in the deep ocean. This session invites novel contributions that relate tracers in the coastal and open ocean interfaces (such as gases, micronutrients, metals, isotopes, organic carbon, etc.) to investigate the relationship between ecosystems and biogeochemical processes at the mesoscale and submesoscale. The session is relevant to the science goals of the IMBER project and will provide a venue for assessing current understanding as a means to developing future collaborative research programs.