Workshop Programme

Thursday, September 6

1. Cycling of micronutrients – processes, transports, sources and sinks
Chair: Marion Gehlen (LSCE)

09:00 – 09:15 Welcome, logistics, workshop objectives

09:15 – 10:00 Keynote 1: Ed Boyle (MIT)
Cycling of Trace Micronutrients (e.g., Fe, Zn, Cd) in the Ocean: What We Know and What We Need to Know.

10:00 – 10:45 Keynote 2: Olivier Aumont (IFREMER)
Modelling micronutrients in the ocean: The case of Iron.

10:45 – 11:15 Coffee Break

11:15 – 13:00 Discussion and short presentations
13:00 – 14:15 Lunch

2. Potential of TEIs as recorders of ocean productivity and nutrient/carbon fluxes
Chair: Nicolas Gruber (ETH)

14:15 – 14:45 Keynote 1: Danny Sigman (Princeton U)
Nitrate isotopes as a constraint on the ocean's fixed N budget.

14:45 – 15:15 Keynote 2: Christina de la Rocha (AWI)
Understanding the distribution and behaviour of Si isotopes in the ocean

15:15 – 15:45 Keynote 3: Andy Ridgwell (U Bristol)
What can we learn by assimilating geochemical ocean data in computer models?

15:45 – 16:15 Coffee Break

16:15 – 18:00 Discussion and short presentations

18:00 – 19:30 Dinner
19:30 – 21:00 Poster Session

Friday, September 7

3. Paleo proxy development – separating the effects of circulation and particle dynamics
Chair: Bob Anderson (LDEO)

09:00 – 09:40 Keynote 1: Gideon Henderson (Oxford U)
The $^{231}Pa/^{230}Th$ paleoproxy: How should we interpret the growing observational dataset?

09:40 – 10:05 Keynote 2: Olivier Marchal (WHOI)
An inverse method to combine radiochemical measurements and a circulation model: Application to the North Atlantic.

10:05 – 10:30 Keynote 3: Thomas Arsouze (LSCE)
Modelling the Nd cycle with a global circulation model.

10:30 – 11:00 Coffee Break

11:00 – 12:45 Discussion and short presentations
12:45 – 14:15 Lunch

4. Data assimilation in the GEOTRACES context
Chair: Olivier Marchal (WHOI)

14:15 – 15:00 Keynote 1: Patrick Heimbach (MIT)
The ECCO state estimation framework and its potential for GEOTRACES

15:00 – 15:45 Keynote 2: Thomas Kaminski (FastOpt, Hamburg)
Quantitative design of observational networks

15:45 – 16:15 Coffee Break

16:15 – 18:00 Discussion and short presentations
18:00 – 19:30 Dinner

19:30 – 21:00 Poster Session

Saturday, September 8

5. Data and model resources for GEOTRACES
Chair: Andreas Oschlies (IfM-GEOMAR)

Data

08:30 – 09:10 Chris Measures (U Hawaii)
Initial sampling plans for GEOTRACES in the Pacific and strategies for data availability and distribution within the GEOTRACES program.

09:10 – 09:40 Ian Robinson (NOC Southampton)
Satellite data for GEOTRACES - Availability, potential and limitations.

09:40 – 10:00 Cindy Chandler (WHOI)
An Introduction to the Biological and Chemical Oceanography Data Management Office

10:00 – 10:30 Coffee Break

Models I

10:30 – 10:50 Ernst Maier-Reimer (MPI Hamburg)
Tracer simulations with HAMOCC and LSGor MPIOM

10:50 – 11:10 Jean-Claude Dutay (LSCE)
Tracer simulations with PISCES and OPA/ORCA

11:10 – 11:35 Hiroyasu Hasumi (U Tokyo)
An overview of global scale ocean modelling from low to high resolution

11:35 – 12:00 Samar Khatiwala (LDEO)
Fast offline forward and adjoint modeling of ocean biogeochemical and paleoceanographic tracers using the transport matrix method

12:00 – 12:30 Detlef Stammer (IfM Hamburg)
Global ocean syntheses in support of physical and bio-geochemical studies

12:30 – 13:45 Lunch

Models II

13:45 – 14:10 Andy Ridgwell (U Bristol)
Fast models of intermediate complexity as an analytical tool for GEOTRACES scientists

14:10 – 14:30 Andreas Oschlies (IfM-GEOMAR)
Regional high resolution models and why we need them within the GEOTRACES program

14:30 – 15:00 Final discussion

15:00 End of workshop