



Hanse-Wissenschaftskolleg
Institute for Advanced Study

GEOTRACES synthesis preparation workshop

Delmenhorst, July 3 – 4, 2025

Organisers:

Walter Geibert, Elena Masferrer
and Doris Meyerdierks (host)

with contributions from the organizing committee:
Catherine Jeandel, Lise Artigue, Jianghui Du
and David González Santana

Venue:

Hanse-Wissenschaftskolleg
Institute for Advanced Study
Lehmkuhlenbusch 4
27753 Delmenhorst
Germany
www.h-w-k.de

Program

Thursday July 3, 2025

- 9:00 Doris Meyerdierks Welcome
9:05 Walter Geibert Why and how
9:10 Distributing observer roles, possible working groups and motivation of tasks

Taking stock: What kind of synthesis efforts are already going on?

- 09:15 Stephan Krisch - Towards a review in Arctic micronutrients?
09:35 Ed Hathorne - The proxies Nd, REE, Ba isotopes: Tracer-sediment links
09:55 Zhouling Zhang - Synthesis work on Nd isotopes
10:05 Marta Perez Rodriguez - Mercury and methyl mercury in the Southern Ocean
10:15 Mark Hopwood -
A brief statement on oxygen minimum zone research as part of GEOTRACES
10:25 Closing discussion 1st part

10:30 Coffee break

Taking stock: What kind of synthesis efforts are already going on?

- 10:45 Emilie LeRoy - Combining radioactive and stable tracers for budgets – examples from the radium world
11:00 Lise Artigue - Combining multi-tracer approaches with hydrodynamic modeling and microbiology
11:15 Martha Gledhill -
Chemical controls on trace elements in the ocean (+ Biogeotraces)
11:35 Ying Ye - example for modelling using existing data (with contributions by Kathrin Wuttig and Christoph Völker)
11:55 Yeala Shaked - An example of synthesis work: the Fe bioavailability index
12:10 Antoine Ringard and H  l  ne Planquette -
Biogenic trace metal stoichiometry in particulate material
12:25 Edelgard Baumann - Trace elements in the Southern Ocean, MISO cruise (IO9): new data connecting to the bigger picture
12:35 Closing discussion 2nd part
12:45 Walter Geibert - Baselines for economy and politics

13:00 Lunch

Aims and strategies

- 14:00 Bob Anderson - GEOTRACES synthesis
14:30 Elena Masferrer Dodas and Lise Artigue -
What has been achieved in terms of products?
15:00 Ryan Cloete -
Outreach and education opportunities through media and other avenues
15:15 Eric Achterberg - Creative and insightful synthesis approaches

15:30 *Coffee break*

Aims and strategies

- 15:45 Catherine Jeandel - The path of paradigms - suggestions on a way to build Geotraces synthesis
- 16:00 David Gonzalez Santana -
Low-cost analytical approaches and community-driven solutions
- 16:15 Eleni Stathopoulou - Where to shift the focus in upcoming TEI research?
- 16:30 Peter Croot - Synthesis of multiple datasets and deep learning approaches
- 16:45 Lars-Eric Heimbürger - Mercury - forming networks on an element cycle
- 17:00 Tim Conway - Fe, Fe isotopes and Fe fluxes
- 17:20 Ana Cristina Vásquez - Copper isotope work in a Costa Rican river - An ECR and Latin American perspective
- 17:35 Jay Cullen - Canadian-European links, high Latitudes and Biogetraces Aspects
- 17:55 Free slot possible for late time zones (e.g. Ed Boyle, Margot Debyser)

18:00 *Dinner at HWK*

Friday July 4, 2025

- 09:00 Catherine Jeandel, Walter Geibert, Elena Masferrer -
Report on current explorations of European funding
- 09:15 Julien Middleton - d30Si collaboration/exchange
- 09:25 Nabir Mamnun - Schmidt Science Institute funding
- 09:30 Ryan Cloete - Networking in Southern Ocean research
- 09:35 David Gonzalez Santana - An ECR perspective on collaborations
- 09:45 Mark Hopwood - Pacific Rim Networking
- 09:55 Wen Hsuan Liao - Metal isotopes and beyond
- 10:00 Rob Middag - Introduction of networking potential around micronutrients and
and BioGeoScapes activities
- 10:10 Antoine Ringard/Hélène Planquette - possible connections for
networking/funding
- 10:15 Peter Croot - possible connections for networking /funding
- 10:25 If possible from the cruise: brief introduction of Hajime Obata, Jun Nishioka and
Yoshiko Kondo

10:30 *Coffee break*

All times for personal networking introductions are approximate - range between 1 and 10 + 5 minutes as discussed

10:45 Eleni Stathopoulou - possible connections for networking /funding
10:55 Zhouling Zhang - possible connections for networking /funding
Seyed Reza Saghravani - possible connections for networking /funding
Gabriel de Souza Franco - possible connections for networking /funding (with database creation aspects)
Edelgard Baumann - possible connections for networking /funding from an ECR/ Southern Ocean perspective
Lars-Eric Heimbürger - possible connections for networking /funding from a mercury perspective
Lise Artigue - possible connections for networking /funding
Emilie LeRoy - possible connections for networking /funding
Eric Achterberg - possible connections for networking /funding
Ed Hathorne - possible connections for networking /funding
Stephan Krisch - possible connections for networking /funding
Kathrin Wuttig - possible connections for networking /funding
Ying Ye - possible connections for networking /funding
Yeala Shaked - possible connections for networking /funding (experience from Fe bioavailability working group)
Ana Cristina Vasquez - An ECR and regional LatAm perspective on networking
Ed Boyle - possible connections for networking /funding from a Pb isotope perspective
Margot Debyser - possible connections for networking /funding e.g. from a Si isotope synthesis perspective
Tim Conway - possible connections for networking /funding (Fe+ Fe isotope perspective)
Jay Cullen - possible connections for networking /funding
Other networking contributors

13:00 *Lunch*

14:00 Reports from observers, reports from possible working groups and organising writing and further networking (e.g. Goldschmidt) tasks
14:50 Closing remarks
15:00 Farewell/ End of workshop