

**Deep Continental Drilling into the Moho (DCD Moho)
in the Ivrea-Verbano Zone
Baveno, Lago Maggiore, Southern Alps, Italy, 1st-5th May 2017**

Workshop agenda

NB: See attached table for the list of participants

Monday, May 1st 2017

18.30 – 20.00: Ice-breaker at Hotel Dino, Baveno.

20.00: Dinner

Tuesday, May 2nd 2017

07:00 – 09:00: Breakfast

09:00 – 09:20: Welcome by Pls / Aims of the workshop

09.20 – 09.40: P. Kelemen

Nature and evolution of the lower crust

09.40 – 10.00: W. Mooney

Fine seismic structure of the continental Moho

10.00 – 10.20: G. Bergantz

Petrophysical modelling of the lower crust

10.20 – 10.40: A. Zappone

SAPHYR: The continental crust in a database

10.40 – 11.00: Coffee break

11.00 – 11.20: A. Zanetti

The lower crust in the North IVZ: the case study of the
Val Cannobino Section

11.20 – 11.40: S. Sinigoi

The lower crust in Southern IVZ and the Sesia Magmatic
System

11.40 – 12.00: T. Diehl

High-resolution 3D seismic structure of IVZ

- 12.00 – 12.20: G. Hetényi
Past and forthcoming passive geophysical surveys of the Ivrea body
- 12.20 – 12.40: C. Piromallo / S Pondrelli
Near-surface geophysics
- 12.40 – 14.00: Lunch
- 14.00 – 14.20: U. Harms (ICDP)
Presentation of ICDP / guidelines for a drilling project
- 14.20 – 14.40: M. Weber
Pre-drilling geophysical characterization of drilling sites
- 14.40 – 15.00: J.-E. Rosberg
Drilling technology for crystalline rocks
- 15.00 – 15.20: S. Pierdominici
Downhole logging techniques
- 15.20 – 15.40: Coffee break
- 15.40 – 16.00: A. Schleicher
Recovery, characterization and storage of drilling cores
- 16.00 – 16.20: B. Almqvist
Using downhole logging and drilling cores to link rock parameters
- 16.20 – 16.40: A. Manzella
Drilling and geothermal energy
- 16.40 – 17.00: R. Kipfer
Noble gas analysis in conventional and unconventional aquatic environments: from temperature reconstruction to fluid transport in the crust
- 17.00 – 17.20 D. Giovannelli
Deep biosphere: gaps in our knowledge and opportunities for ICDP

17.20 – 18.30: Refreshment and plenary discussions

19.00: Dinner

Wednesday, May 3rd 2017 - Field trip

6.30 – 07.15: Breakfast

07.30: Leaving Hotel Dino

A field trip to key rock outcrops of Val Sesia: i) ultramafic rocks of the Balmuccia peridotite, ii) pyroxenites, gabbros and metapelite septa at Isola, iii) mingling between the gabbro and overlying diorite in Bocciolaro, iv) high-grade metamorphic rocks in Varallo.

18.00: Arriving to Hotel Dino

19.30: Dinner

Thursday, May 4th 2017

07:00 – 08.30: Breakfast

09.00 – 9h20: C. Schiffries,

Scientific drilling strategies for exploring Earth's deep carbon cycle

09.20 – 10.00: L. Ziberna, M. Pistone, A. Zanetti, O. Müntener,

Potential drilling sites, summarizing key points for the proposal:

10.00 – 10-40: **Working groups** (Petrology, Geophysics, Fluids+ Microbiology, Site survey, logging, drilling) distilling key questions of DCD Moho Ivrea) and planned activities planned before proposal submission

10h40 – 11.00: Coffee break

10.40 – 13h30: **Working groups**, continued

13.00 – 14.00: **Lunch**

14.00 – 15.30: **Working groups**, continued

15.30 – 15.45: Coffee break

15.45 – 18.00: **Plenary discussion from Working group topic** (15 minutes max / group Discussion) Plenary discussion, and activities planned before the deadline of proposal submission (15.1.2018)

19.00: Dinner

Friday, May 5th 2017

07:00 – 08.30: Breakfast and check-out

09.00 – 10.45: Final drilling targets (sites, depths, methods) / discussion:

10.45 – 11.00: Coffee break

11.00 – 11.45: small groups (MIXED disciplines) in the garden: putting together highlights in small groups and missing disciplines/topics. (continued) Final drilling targets
Possible costs, financial contributions

1145- 13h00 Each small group presents their thoughts, and deliver potential names: provide lists to conveners

Timeline and tasks distribution.

13.00 – 14.00: Lunch

**ICDP workshop on Deep Continental Drilling into the Moho (DCD Moho)
in the Ivrea-Verbano Zone**

List of participants
(updated on May 1st 2017)

| Name | Country | Affiliation |
|---------------------------|-------------|--|
| Almqvist Bjarne | Sweden | University of Uppsala |
| Bergantz George | USA | University of Washington, Seattle |
| Berthet Théo | France | Grenoble Alpes University |
| Brack Peter | Switzerland | ETH-Zurich |
| Cao Shuyun | China | China University of Geoscience, Wuhan |
| Diehl Tobias | Switzerland | ETH-Zurich |
| Economos Rita | USA | Southern Methodist University, Dallas |
| Giovannelli Donato | Japan/USA | ELSI, Tokyo / Rutgers Univ., New Brunswick |
| Hacker Bradley | USA | University of California, Santa Barbara |
| Harms Uli | Germany | GFZ-Potsdam |
| Hermann Jörg | Switzerland | University of Bern |
| Hetényi György | Switzerland | UNIL |
| Holliger Klaus | Switzerland | UNIL |
| Jaiswal Priyank | USA | Oklahoma State University |
| Karakas Ozge | Switzerland | ETH-Zurich |
| Kelemen Peter | USA | University of Columbia |
| Kipfer Rolf | Switzerland | Eawag, ETHZ |
| Langone Antonio | Italy | CNR, Pavia |
| Leuthold Julien | Switzerland | ETH-Zurich |
| Manzella Adele | Italy | CNR, Pisa |
| Mazzucchelli Maurizio | Italy | University of Modena |
| McIntire Michael Z. | USA | University of Washington |
| Mohsen Bazargan | Sweden | University of Uppsala |
| Mooney Walter | USA | USGS |
| Müntener Othmar | Switzerland | UNIL |
| Nabelek Peter | USA | University of Missouri |
| Petri Benoît | Switzerland | UNIL |
| Pierdominici Simona | Germany | GFZ-Potsdam |
| Pistone Mattia | Switzerland | UNIL |
| Pondrelli Silvia | Italy | INGV, Bologna |
| Rosberg Jan-Erik | Sweden | Lund University |
| Scarponi Matteo | Switzerland | UNIL |
| Schiffries Craig | USA | DCO, Geophysical Laboratory, Washington DC |
| Schleicher Anja | Germany | GFZ-Potsdam |
| Sinigoj Silvano | Italy | University of Trieste |
| Sisson Tom | USA | USGS |
| Smye Andrew | USA | Pennsylvania State University |
| Storck Julian-Christopher | Switzerland | ETH-Zurich |
| Tavazzani Lorenzo | USA | Southern Methodist University, Dallas |
| Tribuzio Riccardo | Italy | University of Pavia / CNR, Pavia |

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|-----------------|-------------|------------------------|
| Tweed Lucy | USA | University of Columbia |
| Ulmer Peter | Switzerland | ETH-Zurich |
| Weber Michael | Germany | GFZ-Potsdam |
| Zanetti Alberto | Italy | CNR, Pavia |
| Zappone Alba | Switzerland | ETH-Zurich |
| Zibera Luca | Germany | University of Bayreuth |
