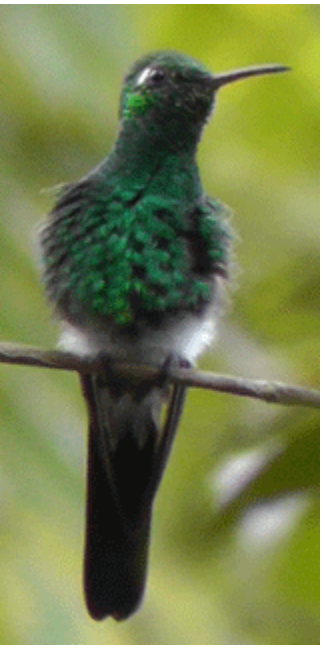
CoLiBrI – Continental Lithosphere: a Broadscale Investigation



LAST YEAR'S INTRO

What: -platform to exchange on the structure, properties and evolution across scales;
-relating **field** observations to laboratory data and modelling;
-focus on **AlpArray** and **DIVE**: Drilling the Ivrea-Verbano zonE
-outreach and training

When: ILP Task Force 2021-2025

Who: G. Hetényi, H. Žlebčíková (J. Plomerová), M. Bielik, J.-C. Afonso

Info: https://www.scl-ilp.org/fileadmin/sclilp/science/ILP_COLIBRI.pdf

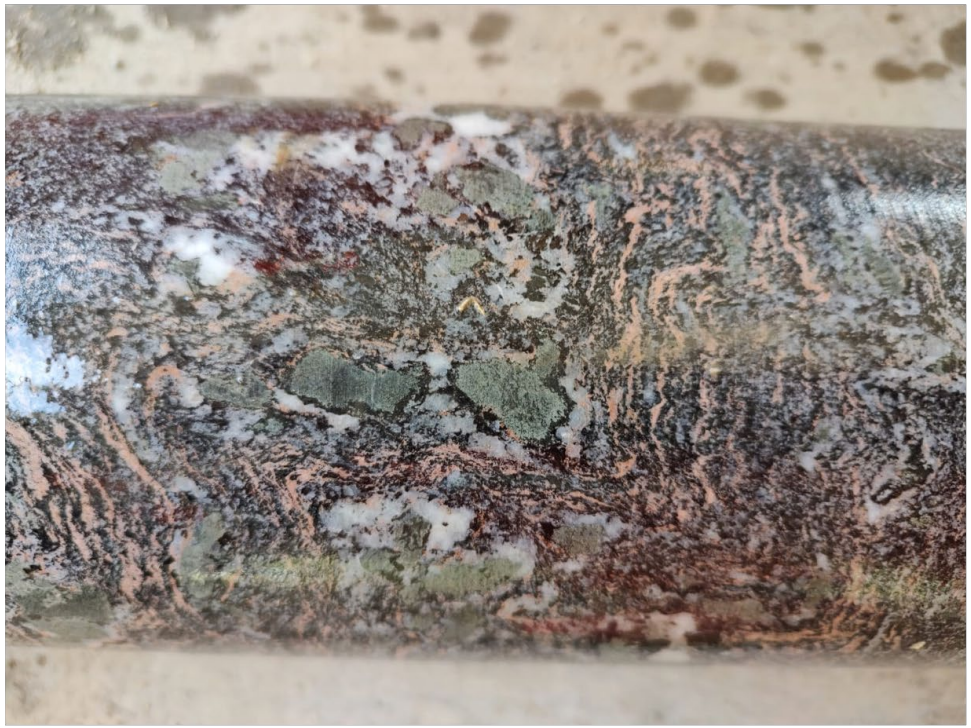
Main news, May 2022 – April 2023

- Seismological network PACASE transitioned to AdriaArray, now operational
- The ICDP-project **DIVE** drilled its first hole, to 578.5 m depth, into former mid-lower crustal rocks, core recovery was ~100%
- Educational videos on the **Lithosphere** released
- New special volume launched in *Acta Geodaetica et Geophysica*

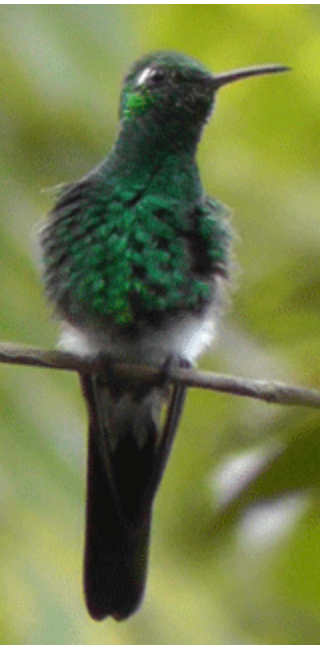
DIVE DT-1b borehole:

DIVE

DRILLING THE IVREA-VERBANO ZONE



CoLiBrI – past year's activity



Seminar series on the Lithosphere and the LAB

What: five topical presentations on different aspects of the L & LAB

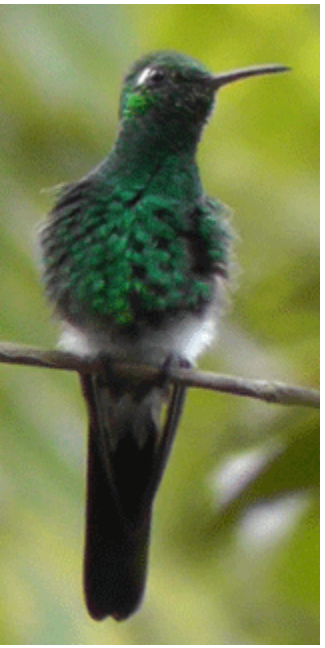
Format: recorded talks, broadcasted via YouTube

Contents:

- the thermal talk, by Derrick Hasterok, 60 minutes, weblink
- the electromagnetic talk, by Benjamin S. Murphy, 38 minutes, weblink
- the petrological talk, by Sébastien Pilet, 38 minutes, weblink
- the 2nd half of the seismological talk, by Jarka Plomerova, 22 minutes, weblink
- the dedicated Alpine talk with gravimetry, by four colleagues in Slovakia, 47 minutes, weblink

The full playlist is available here.

CoLiBrI – recent activity



Special volume in *Acta Geodaetica et Geophysica*

Crustal and upper mantle structures and processes in the Alpine-Carpathian-Pannonian system: recent advances

https://www.springer.com/journal/40328

Editors: István Kovács, Kristóf Porkoláb, Sierd Cloetingh, György Hetényi

Schedule: submit by 15.09, first reviews 12.15, volume completed in Spring 2024

Frame: In the recent years thanks to large-scale European and regional, on-going and unfolding coordinated projects (AlpArray, AdriaArray, PACASE, TopoTransylvania, NKP, Pannon LitH2Oscope Momentum Grant, etc.) imaging the crust and the upper mantle by different geophysical methodologies and networks has provided new unparalleled insight in into the deep structures and processes beneath the Carpathian-Pannonian region (referred to as CPR for short). The CPR is a young, extensional basin, which is since recently undergoing tectonic inversion, and therefore it is an excellent natural laboratory to improve our understanding of lithospheric extension and subsequent inversion together with the related sedimentation, deformation and volcanism, and the role of major geophysical discontinuities. Recent discoveries will boost applied research in geothermal energy resources, geohazard mitigation, geodynamic modelling and coupled deep–surface processes posing clime societal challenges. These goals define the frame of the special issue being hosted at Acta Geodaetica et Geophysica, for which we invite high impact manuscripts on the CPR discussing modern geophysical mapping and globally relevant process oriented themes.