

Magma chambers, dykes, and volcanic eruptions

- **Dates:** Thursday 30th November –Friday 1st December 2023, from 9h00 to 12:00 and 13h30 to 16h30.
- **Location:** Albertov 6, 2nd floor-left, petrology lecture room, no. 203
- **Students should register via SIS course MG440C111 Advances in Petrology and Structural Geology**
- **Students should bring a laptop**
- **Teacher:** Catherine Annen, Institute of Geophysics of the Czech Academy of Sciences. annen@ig.cas.cz
- **Language:** The course will be given in English

Course description:

In this short course, we will discuss the current state of the science on volcano plumbing systems. What are magma chambers and melt reservoirs? How do they form? How is the magma transferred between chambers and towards the surface? What is the role of dykes and sills? What is the role of volatiles? What are the conditions for a magma chamber to feed a volcanic eruption? We will review the evidence provided by geophysics, igneous petrology, geochronology, and crystal studies to understand the current models of volcanic plumbing systems and how these models evolved over time.

The course will include a practical part. Students will use simple calculations to reinforce their understanding of magma dynamics.