Open PhD position in the FWF-funded project “Update for understanding geological time”

University of Vienna, Faculty of Earth Sciences, Geography and Astronomy, Department of Palaeontology

Job vacancy starting: earliest convenience, not later than 01.06.2025 | Working hours: 30.00 | Classification CBA: §48 VwGr. B1 Grundstufe (praedoc)

Limited contract: 3 years

As a PhD student, you will join the research group in Vienna around Theresa Nohl in the FWF-funded project “Update for understanding geological time”.

1st supervisor: Theresa Nohl (University of Vienna)

2nd supervisor: David De Vleeschouwer (University of Münster)

Mentor: Michael Wagreich (University of Vienna)

Project Abstract:

Rhythmically alternating lithologies have been subject of intense discussion in the terms of their origin. They are often used as a record of astronomically forced climate change, even though it has been shown that diagenesis (i.e. differential diagenesis of different carbonate minerals during early burial) can enhance or disguise the environmental signal, or even introduce rhythmicity. Importantly, cyclic deposits are used to infer deposition rates and geological time from the rock record. Up to date, an integration of diagenetic and cyclostratigraphic methods is missing with severe implications for the temporal resolution of a broad range of geoscientific analyses. The aims of the project are (1) to scrutinise how diagenesis and post-depositional processes affect the record of original environmental cycles and (2) to evaluate how time is distributed within an astronomically forced lithological cycle. To achieve this, two new methods from diagenesis (based on the geochemistry) and cyclostratigraphy (statistical method) are planned to be applied to selected records from drill cores from the Integrated Ocean Drilling Program (IODP) and its predecessors from different water depths, latitudes and ages with existing interpretations on diagenesis or cyclostratigraphy.

Your future tasks:

You actively participate in research and administration in the project and research group, which means:

- Laboratory work on samples ($CaCO_3$, XRF), data organisation and data analysis
- Writing of and contributing to publications and conference presentations

- Contributing to administrative tasks
- Participating in the University's doctoral school program VISESS

Your profile:

- Completed Master's degree or Diploma, in the field of Geosciences with focus on carbonate sedimentology and cyclostratigraphy with knowledge of diagenetic processes
- Competence in statistics and R.
- Experience in academic writing, academic publications and conference presentations are of advantage.
- Good command of written and spoken English (B2 Level).
- You should be a team player with high social skills.

It is that easy to apply:

- With your scientific curriculum vitae
- With your letter of intent summarising your qualification and motivation for this project as well as your research interests and future professional plans (max. 2 pages)
- Official degree certificates (BSc and MSc)
- Contact details of two references

Please send all documents combined in one pdf-file to Theresa Nohl (theresa.nohl@univie.ac.at)

Application deadline: 31/01/2025

We look forward to new personalities in our team! The University of Vienna has an anti-discriminatory employment policy and attaches great importance to equal opportunities, the advancement of women and diversity. We lay special emphasis on increasing the number of women in senior and in academic positions among the academic and general university staff and therefore expressly encourage qualified women to apply. Given equal qualifications, preference will be given to female candidates.