The Department of Geology (University of Vienna, geologie.univie.ac.at) is seeking a highly motivated PhD candidate for a 4-years position in the frame of our new project about field and numerical studies of anisotropic rocks (POLARIS). The project POLARIS, which is in the frame of the Central European Science Partnership (CEUS), is a collaboration between the University of Vienna (funded by the Austrian Science Fund FWF; PI: Bernhard Grasemann) and the Polish Geological Institute - National Research Institute (funded by the National Science Centre of Poland NCN; PI: Marcin Dabrowski).

The successful PhD candidate in Vienna will investigate the effects of anisotropy with quantitative high-resolution mapping on the development of micro- to mesoscopic natural deformation structures in rocks like porphyroclasts, flanking structures, secondary foliations, folds and boudinage from major shear zones in Austria and Greece. Key samples will be quantitatively investigated using Structure from Motion photogrammetry, scanning electron microscope and x-ray computer tomography in order to capture the full 3D shape. Furthermore, SEM/EBSD and CT will be used to quantify the degree of anisotropy of natural samples.

While the Polish research team will mainly focus on the implementation of the micro-polar mechanical model into the FEM code MILAMIN (www.milamin.org), the successful PhD candidate in Vienna is expected to closely collaborate and interact with the Polish partner.

The 4-years project will start in March 2022. Eligible applicants should have a MSc degree in Earth Science and experience with structural field geology and high-resolution analytical techniques in microtectonics. Furthermore, a strong record of oral and written communication skills in English are expected. The successful candidate will automatically become part of the inspiring research environment of the Vienna International School of Earth and Space Sciences (VISESS, visess.univie.ac.at).

To enquire or apply, please contact Bernhard Grasemann (Bernhard.Grasemann@univie.ac.at). Applicants should provide the following (deadline is 10th December, 2021):

- Short cover letter (motivation, research interests)
- CV (education, work and research record, publications)
- Names and e-mail of 2 references