



## **Estimation of recent activity and segmentation along the Diendorf Fault System (Austria) based on multiple parameters**

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The Diendorf-Boskovice Fault System is a ca. 200 km long, approximately NE-SW trending fault system that forms the eastern margin of the Bohemian Massif in Austria. It extends towards Brno (CZ), where it is supposed to be kinematically linked to the Boskovice furrow. Showing a long-lasting and multiphase history, proofs of NE-SW-trending left-lateral strike-slip partly ductile, mylonitic shear zones during Carboniferous and Permian times are observed. In addition, insights show continuous transtensional left-lateral strike-slip faulting during Miocene. Finally, recent tectonic activity is observed based on several independent data sets such as geological investigations, geomorphologic assessment, geophysical and geodetic data.

However, these observations were carried out only at specific locations. A closer inspection along the length of the fault system shows segments of different appearances due to the long-lasting tectonic history of the Diendorf Fault System. Therefore, we present here a multi-parameter study, partly based on geomorphological parameters, but also including structural geological analysis and earthquake locations, in order to achieve a better overview of potentially seismogenic parts of the fault system. The results of the study are then used to undertake a segmentation of the Diendorf-Boskovice Fault System, which in turn will be the base for more detailed investigations regarding the maximum credible earthquake at this fault system.