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Soil Erosion Risk Assessment and Modelling

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Soil erosion is a phenomenon with relevance for many research topics in the geosciences. Consequently, PhD students with many different backgrounds are exposed to soil erosion related questions during their research. These students require a compact, but detailed introduction to erosion processes, the risks associated with erosion, but also tools to assess and study erosion related questions ranging from a simple risk assessment to effects of climate change on erosion-related effects on geochemistry on various scales. The PhD course on Soil Erosion Risk Assessment and Modelling offered by the University of Aarhus and conducted jointly with the University of Basel is aimed at graduate students with degrees in the geosciences and a PhD research topic with a link to soil erosion. The course offers a unique introduction to erosion processes, conventional risk assessment and field-truthing of results. This is achieved by combing lectures, mapping, erosion experiments, and GIS-based erosion modelling. A particular mark of the course design is the direct link between the results of each part of the course activities. This ensures the achievement of a holistic understanding of erosion in the environment as a key learning outcome.