

Approaches to the German flood event 2021

Würzburg University

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Geomorphological research projects focussing the July 2021 Flood Event

Michael Dietze (GFZ) in his duty for the – Deutsche Gesellschaft für Geomorphologie e.V. (former Ak Geomorphologie) – gathered geomorphologists from german universities and research institutes recently active in the area.

Deutsche Gesellschaft für Geomorphologie e.V.



Institute	Approach	Further
GFZ & Uni Potsdam (Dr. Dietze)	UAV and LiDAR based hydraulic modelling and damage modelling - HART-Proposal	What science must find answers to after the flood disaster (gfz-potsdam.de)
Uni Leipzig (Prof. Zielhofer)	Grid sampling and geochemical and sedimentological characterisation of Ahr-sediments applying laboratory analysis	Universität Leipzig: Prof. Dr. Christoph Zielhofer (uni-leipzig.de)
Uni Trier (Prof. Ries)	Mapping of flood marks	Uni Trier: Professor Dr. Ries, Johannes B. (uni-trier.de)
Uni Tübingen (Dr. Beer)	Mapping of flood marks and erosional traces	Alexander Beer Universität Tübingen (uni-tuebingen.de)

Institute	Approach	Further
Uni Bonn (Prof. Schrott, Dr. Bell)	Mapping of flood marks, geophysical and seismic slope instability analysis	Schrott, Lothar — Department of Geography University Bonn (uni-bonn.de)
Uni Bonn (Prof. Herget, Roggenkamp)	Large scale mapping of flood marks for the derivation of flood wave dynamics	Herget, Jürgen — Department of Geography University Bonn (uni-bonn.de)
Uni Aachen (Prof. Lehmkuhl)	Sampling and geochemical and sedimentological characterisation of lower catchment sediments and waters of Ahr, Erft, Rur	Hochwasser im Juli 2021 in Nordrhein-Westfalen - RWTH AACHEN
DLR (Prof. Strunz)	In time Airborne RGB-mapping - 1 day after flood event – and focus on damage assessment of buildings – AIFER-Project	DLR - Earth Observation Center - Günter Strunz, German Remote Sensing Data Center AIFER - Künstliche Intelligenz zur Analyse und Fusion von Erdbeobachtungs- und Internetdaten..
Uni Mainz (Prof. Vött, Enzmann)	Process based slope hazard modelling – MABEIS-Project	Prof. Dr. Andreas Vött Geographisches Institut (uni-mainz.de)



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Abbildung 1: Auenüberflutung der Rur vor Einruhr. Blickrichtung gegen die Fließrichtung.



Abbildung 2: a) Probennahme suspendierter Sedimente, b) beprobtes Hochwassersediment auf Parkplatz, c) beprobtes Hochwassersediment auf einer Flussaue der Rur, d) getrocknete Sedimentproben im physisch-geographischen Labor des PGG