

Curriculum vitae



Dr. rer. nat. Michael Dietze

Post Doctoral Researcher
Section 4.6 Geomorphology
German Research Centre for Geosciences GFZ

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Born 16.11.1979, Annaberg, Germany
Married, two children (parental leave 2010, 2014)

APPOINTMENTS AND TRAINING

- 2016 **Royal Netherlands Institute for Sea Research, Texel**
Visiting scientist (6 months)
- 2013–2019 **German Research Centre for Geosciences, Potsdam**
Post Doctoral researcher on Environmental Seismology
Project Manager Horizon 2020 MSC ITN SUBITOP
- 2008 **CICESE, Ensenada, Mexico**
Research stay (3 months)
- 2007–2013 **Technische Universität Dresden**
Teaching and Post doctoral research position
PhD thesis (Dietze, M. 2012. Stone pavements and soil development – tackling evolution and dynamics of arid environments. Cumulative dissertation), summa cum laude
Study of relevant parts of B.Sc. Physics
Conceptualisation/implementation of a luminescence lab
Scientific assistant, Chair of Physical Geography
- 2000–2007 **Technische Universität Dresden**
Study of Geography (minors: Appl. geology, Soil science),
Diploma thesis (2007), Sehr gut

AWARDS

- 2017 Research Highlight Article: Seismic monitoring of small alpine rockfalls – validity, precision and limitations
- 2013 Best PhD thesis award, German Geomorphology Group

FUNDING

- 2019 (approved) NERC Bedload quantification in large rivers, as partner (59k €)
- 2018 Helmholtz Expedition Fund, Arctic river sediment fluxes (8k €)
- 2018 AlpSenseBench, surveying mass wasting, as partner (700k €)
- 2014–2017 DFG Wissenschaftsnetzwerk, as partner (24k €)
- 2013 Helmholtz Expedition Fund, Exploration of Alpine rockfalls (6k €)
- 2008 DFG Travel Grant, GSA Annual Meeting, Houston (1k €)

MANAGEMENT & STEERING

Boards and Panels

European Geosciences Union (EGU) Programme Committee
EGU Geomorphology Early Career Scientist representative
German Society of Geomorphology Advisory Board

Communication (Science)

Chair Software Carpentry, Potsdam branch (2018-2019)
EGU2020 Townhall Meeting "Data handling in publications"
EGU2020 Great Debate "Slow Science"
EGU2019/20 Courses on software management/development

GFZ institution's internal activities

Department speaker in software development strategies
GFZ data management strategy group member
Geomorphology Section data management coordinator
Coordination & implementation scientific hardware development

Management of the Horizon 2020 ITN SUBITOP

Coordination of interaction between institutions and private sector
Finance and human resources management
Organisation of conferences, workshops, short courses
Outreach and committee engagements
Interaction with the European Commission

During earlier positions

Representation of German students and early career scientists
Conception, implementation and evaluation of courses
Active memberships in institutional panels & organisations

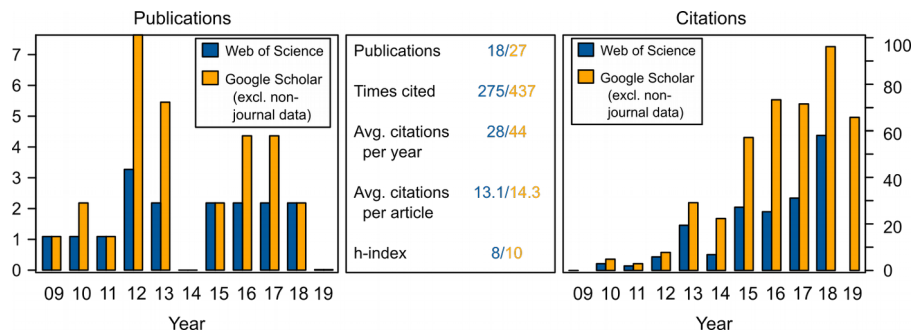
MEDIA & OUTREACH	Interviews	Introduction to Geosciences, GFZ outreach (2017) Rockfall experiment Demmin, Kulturradio (2017) R package EMMAgeo, GFZ outreach channel (2016)
	Television	Hochvogel collapse monitoring, BR (2018) Permafrost & Reintal rockfall observatory, ZDFinfo (2018) Rügen-Cliff-Project, NDR, GFZ Youtube channel (2017) GFZ Career Day, dual career chair (2017)
	Newspaper articles	numerous interviews and reports
SERVICE	Editor, journals	Earth Surface Processes and Landforms (GE), Earth Surface Dynamics (GE), Geochronology (AE)
	Review, journals	Earth Surface Processes and Landforms, Earth Surface Dynamics, Journal of Geophysical Research, Remote Sensing, Annals of Geomorphology, Catena, Nature Scientific Reports, Energies, Soils Science Society of America Journal, Journal of Arid Lands, Quaternary International, Quaternary Geochronology, Bulletin of the Seismological Society of America.
	Review, theses	1 Doctoral thesis, 12 M.Sc. theses, > 100 B.Sc. and study theses
	Supervision	13 M.Sc., 20 B.Sc. theses, > 45 study theses, 20 internships
	Organisation	European Geosciences Union-wide short course chair (since 2019) European Geosciences Early Career Scientists speaker (since 2017) Coordinator seismic devices GFZ-Section 4.6 (since 2013) Speaker/Advisory board Young Geomorphologists (2011-2015) Coordinator Scientific Geography Lectures, TU Dresden (2010-2013)
	Conferences	TopoEurope2019 conference, Granada (2019) First EGU Galileo Conference on Environmental Seismology (2017) EGU Annual Meeting, Sessions about concepts in geosciences, R, Modelling & Experiments, Arid zone dynamics, (since 2012) SUBITOP Conferences, Workshops & Short Course (2016, 17) Annual Meeting German Geomorphology Group. (2007, 14, 17-19)
	Collaborations and Network	
COLLABORATIONS AND NETWORK	Global	NIOZ Texel (NL), Desert Research Institute Reno (US), WSL Zürich (CH), Ben Gurion University (IL), Fundacion Cambugán (EC), National University of Taiwan (TW), INRS Quebec (CA), Uni Lausanne (CH), Inversité Grenoble Alpes (FR), Observatoire de Paris (FR), CICESE Ensenada (MX), Turku University (FI), Umea University (SE), Washington State University (US), Edinburgh University (UK).
	Germany	GFZ Potsdam (landscape evolution, hydrology, remote sensing, Earth system modelling, seismology, geophysics and further sections), Alfred-Wegener-Institute (permafrost dynamics). Universities in Munich (rock mechanics group), Dresden (Geodesy), Gießen, Leipzig, Aachen, Bayreuth, Trier, Augsburg, Köln, Tübingen, Greifswald. HZDR Freiberg, SNSD Klotzsche, National Parks Jasmund, Müritz, Sächsische Schweiz.
EXPERTISE AND SKILLS	Field	Desert & alpine environment mapping, probing, process monitoring Seismic instrumentation of steep topography, hillslopes, channels, coasts, biota-dominated systems
	Computational	Languages: R, Python, (Matlab, C++) Landscape evolution modelling (CHILD, CAESAR, own models) Monte Carlo methods (error propagation, age models) Wind field modelling, Soil erosion modelling Spatial data analysis (seismic source location, radiation modelling) Modelling of sediment sections, propagation of analytic uncertainty
	Statistic	Descriptive statistics (directional data, multivariate data) Geodata management and analysis, signal processing Eigen space-, frequency- and phase space analysis Measurement data handling, homogenisation and integration Luminescence data modelling and visualisation

EXPERTISE AND SKILLS

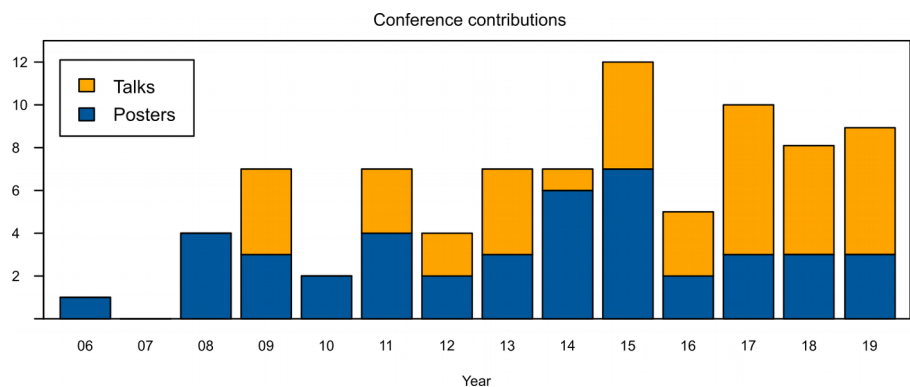
Experiments	Experiment design, set-up, conduction and evaluation Run-off experiments, sediment structure formation, analogue models Natural seismic scale projects, hydrology, meteorology, soils physics
Analytics	Coordination/implementation sediment laboratory, GFZ Potsdam Implementation Luminescence laboratory, TU Dresden XRD, DTA/DTG, Electron micro probe analysis, section microscopy Grain-size analysis (laser diffraction, image processing, classic) Luminescence dating, pedology, petrology
Solutions	Real time data measurement & transmission (Taiwan, Rügen, Alps) Web-based early warning and rapid response systems

PUBLICATION & CITATION SUMMARY

The total publication record contains 37 articles, of which 33 appeared or are to appear in international, peer-reviewed journals. The h-index includes 18 publications, none of the 7 published or accepted publications from 2019 are included, yet.



CONFERENCE CONTRIBUTIONS



SOFTWARE DEVELOPMENTS

- 7 | **Dietze**, M. 2018. eseis: Environmental seismology toolbox. R package version 0.5.0. https://github.com/coffeemugler/eseis/tree/dev_0.5.0
- 6 | **Dietze**, M. 2017. sandbox: Probablistic Numerical Modelling Of Sediment Properties. R package version 0.0.2. Hosted on Github as private repository.
- 5 | **Dietze**, M. 2015. grainsize: Grain-size data analysis functions. R package version 0.1.1. Hosted on GFZ Server as private repository.
- 4 | **Dietze**, M. 2013. geomorphometry: Quantitative relief analysis. R package version 0.1.0. Hosted on GFZ Server as private repository.
- 3 | **Dietze**, M. 2013. RCHILD: Functions for flexible use of the landscape evolution model CHILD. R package version 0.2.3. Hosted on GFZ Server as private repository.
- 2 | **Dietze**, M, E Dietze. 2016. EMMAgeo: End-Member Modelling of Grain-Size Data. R package version 0.9.6. <https://CRAN.R-project.org/package=EMMAgeo>
- 1 | Kreutzer, S, M **Dietze**, C Burow, M C Fuchs, C Schmidt, M Fischer and J Friedrich. 2016. Luminescence: Comprehensive Luminescence Dating Data Analysis. R package version 0.7.0. <https://CRAN.R-project.org/package=Luminescence>

COURSES TAUGHT

(Some courses include assignments to parts of full lectures over a semester.)

Lectures

Mensch-Umwelt-Beziehungen (M.Sc.)
Feld- und Labormethoden in der Geographie (M.Sc., teaching degree)

Seminars

Datenmanagement (B.Sc.)
Geodatenanalyse (B.Sc.)
Geoinformationssysteme/Datenmodellierung (B.Sc.)
Umweltinformationssysteme (Dipl.)
GFZ Student Lunch (M.Sc, Ph.D)
Geomorphologie (Dipl., B.Sc., teaching degree)
Bodengeographie (Dipl., teaching degree)
Landscape sensitivity (M.Sc.)

Laboratory seminars and practices

Mineralogical analysis techniques (with K. Thalheim)
Petrology and mineralogy (with F. Haubrich)
Pedologic laboratory seminar (with diverse colleagues)

Field seminars

Soil geography (Dipl., B.Sc., teaching degree)
Quaternary slope deposits (Dipl., M.Sc.)
Geomorphologie & Geologie im Gelände (B.Sc., teaching degree)

External teaching

EGU Course Writing and maintaining R packages (w. S. Kreutzer)
EGU Course End-member modelling analysis (w. E. Dietze)
Introduction to R and end-member modelling (w. E. Dietze, Cologne University, 2 days)
Luminescence data analysis with R (Mannheim, Berlin, 1 day)
Introduction to R (Kassenärztliche Bundesvereinigung, Berlin, 3 days)
Introduction to R (Workshop for Young Geomorphologists, 1 day)
Software Carpentry, courses and management (3 days)

Field trips

Ambas Californias (with A. Kleber, Mexico part, 12 days)
Kirgistan (with L. Maerker, 23 days)
From Erzgebirge to Baltic Sea (with C. Roettig, 10 days)

The Reintal seismic observatory (with A. Schöpa, 2 days)
Landscape dynamics Erzgebirge (for GFZ Ph.D. group, 2 days)
Mittleres und West-Erzgebirge (mit L. Maerker, 4 days)

Record of research projects

ENVIRONMENTAL SEISMOLOGY

A library of the seismic signatures of Earth surface dynamics (since 2014)

Central scientific objective: Open reference of collectively contributed seismic and independently measured data for validation and statistic investigation of seismic properties of Earth processes.

Expected outcomes: open web-based service, technical article, application article (2019)

Funded by Helmholtz-internal financing mechanisms

Free & open software tailored to environmental seismology (since 2015)

Development during PostDoc position. Free and open package to run the workflow of seismic data preparation and analysis in R.

Outcomes: R-package `eseis`, research article (2018)

Funded by Helmholtz-internal financing mechanisms

Real-time surveying the collapsing Hochvogel Peak (since 2018)

Combined crack meter, seismic, and infra sound monitoring of crack opening patterns on an Alpine peak, rapidly preparing to fail.

Expected outcomes: proof-of-concept article on near-real time early warning system (2020), AlpSenseBench follow-up proposal.

Co-funded within AlpSenseBench project (700k €)

River flow dynamics under frozen streams in cold regions (since 2018)

Combined in situ discharge, sediment flux and seismic monitoring of surficially frozen rivers and catchment properties in Sweden.

In collaboration with Christoph Sens-Schönfelder (GFZ), Eliisa Lotsari (Univ. of Turku) and Lina Polvi Sjöberg (Univ. of Umea).

Outcomes: follow-up proposal for PhD position, research article (summer 2019)

Funded by Helmholtz Expedition Funds (8k €)

Unmixing fluvial turbulence and bedload flux from seismic data (2016-2017)

Application of End-member modelling to seismic spectral data from natural-scale experiments and instrumented observatories.

In collaboration with Danica Roth (Univ. of California), Florent Gimbert (CNRS, Grenoble), Johnathan Laronne (Ben Gurion Univ., Be'er Sheva).

Outcomes: research article (2019)

Funded by Helmholtz-internal financing mechanisms

Sea cliff evolution and collapse susceptibility, Jasmund/Rügen (since 2017)

Seismic detection, location & description of failure events with real-time data transmission and rapid alarming. Seismic precursor activity screening, meteorologic and marine trigger monitoring.

In collaboration with NP Jasmund staff, GFZ seismology groups.

Expected outcomes: research articles, PhD project proposal, operating network to be delivered to Geological Survey authorities

Funded by Helmholtz-internal financing mechanisms

Patterns and drivers of Alpine rockfall activity, Lauterbrunnen Valley (2014-2017)

First independent validation and exploration of seismic capabilities to resolve rockfalls $< 1 \text{ m}^3$ under natural conditions. Multi season instrumentation and periodic lidar scans yield spatially and time-resolved patterns of rockfall activity and their trigger mechanisms.

In collaboration with Todd Ehlers (Tübingen).

Outcomes: two articles in 2017

Funded by Helmholtz Expedition Funds (6k €)

Energetic coupling of atmosphere and Earth surface by vegetation (since 2014)

Seismic data inversion, sap-flow and tree diameter monitoring and modelling of tree motion modi to quantify the amount and paths of energy transferred from the atmosphere to the ground.

In collaboration with Andreas Güntner (GFZ), Martin Wilmking (Greifswald), Danica Roth (Colorado Schools of Mines).

Expected outcomes: article (summer 2019)

Funded by Helmholtz-internal financing mechanisms

LUMINESCENCE SERVICE/MODELS

The R-package sandbox – probabilistic sediment section modelling (since 2016)

The first model framework that touches the idea of building a rule-based, probabilistic sediment section that can be virtually sampled prepared and measured to explore scientific hypothesis and invert real data for unknown input parameters, also beyond OSL dating. In collaboration with Sebastian Kreutzer (IRAMAT Bordeaux) and Margret Fuchs (HIF Freiberg).
Expected outcomes: R-package sandbox, technical and applied articles.

Assessing systematic & random uncertainty by Bayesian models (2016)

The accuracy of OSL age-depth-relationships and their combination with ages is predominantly limited by the unknown amount of systematic errors. An inverse Bayesian approach tackles this and provides a ready to use function to be applied by other scientists. In collaboration with Christian Zeeden (Paris) and Sebastian Kreutzer (IRAMAT Bordeaux).
Outcomes: research article (2017), international initiative (2018).
Funded by DFG Networking Initiative (24k €).

The abanico plot – holistic visualisation of data with individual errors (2014-16)

Many geochronologic data contain individual standard errors that ask for dedicated plots. We merged such a plot with other, intuitive visualisation techniques to the abanico plot, a new plot type. In collaboration with scientists from Freiberg, Bayreuth, Cologne and Bordeaux.
Outcomes: research article (2016).
Funded by DFG Networking Initiative (24k €).

DESERT ENVIRON- MENTS

A new diffusive process that shapes stone-covered desert surfaces (since 2014)

Current mechanisms cannot fully explain the “healing” of disturbed stone pavement surfaces. Laboratory experiments with instrumented equipment quantify boundary conditions and effectivity of rain-induced soil degassing as driving force for diffusive downslope clast movement and alignment.
Expected outcomes: research article in (2020)

Environmental history recorded in aeolian dust under stone pavements (2012-16)

Dust trapped by stone pavements forms a thickening deposit that can be exploited to quantitatively constrain environmental conditions under which the layers were formed during the Quaternary. In collaboration with Stephen Wells (NMT), scientists from Gießen and Dresden.
Outcomes: research article (2016).

Progressive drying of Sahara inferred from Lake Yoa (Chad) sediments (2011-13)

Annually laminated lake sediments from Ounianga Kebir allow high-resolution, precise reconstruction of environmental conditions and progressive climatic change in an African key environment. In collaboration with scientists from Quebec, Cologne, Leipzig, Ghent and Potsdam.
Outcomes: research article (2013).

Formation mechanisms of a key ecological soil horizon in deserts (2010-12)

Vesicular horizons are widespread in deserts worldwide with strong controls on hydrology, dust flux and vegetation density. Laboratory and field experiments fully constrained their formation mechanisms and boundary conditions for the first time.
Outcomes: research article (2012).

Formation mechanisms of a sensitive dynamic surface type in deserts (2008-12)

Stone pavements are ubiquitous features of deserts but could not be fully explained until experiments and numeric & statistic models shed quantitative light onto important mechanisms and the environmental conditions under which these act.
Outcomes: research articles (2011, 2012, 2012).

List of publications

Monographs

- 37 | Kreutzer, S, C Burow, M **Dietze**, MC Fuchs, C Schmidt (in preparation, to be finished 2020). R.Luminescence – luminescence data handling with the R package 'Luminescence'. Book as part of the DFG Scientific Network Project R.Lum.
- 36 | Kleber, A, B Terhorst, H Bullmann, D Hülle, M Leopold, S Müller, T Raab, D Sauer, T Scholten, M **Dietze**, P Felix-Henningsen, J Heinrich, E-D Spies, H Thiemeyer (2013). Chapter 2 - Subdued Mountains of Central Europe. In: Mid-Latitude Slope Deposits (Cover Beds). Developments in Sedimentology 66. 9-93.

Edited work

- 35 | Allstadt, K, M **Dietze**, A Schöpa, F Gimbert, J Turowski, F Walter. From process to signal – advancing environmental seismology. Special Issue of Earth Surface Dynamics. https://www.earth-surf-dynam.net/special_issue920.html

Journal articles

- 34 | Menges J, N Hovius, C Andermann, M **Dietze**, C Swoboda, KL Cook, BR Adhikari, A Vieth-Hillebrand, S Bonnet, T Reimann, A Koutsodendris, D Sachse (in review). Late Holocene landscape collapse of a Trans-Himalayan dryland: Human impact and aridification. Geophysical Research Letters.
- 33 | Polvi L, M **Dietze**, E Lotsari, J Turowski, L Lind (in review). Seismic monitoring of a subarctic river: seasonal variations in hydraulics, sediment transport and ice dynamics. Water Resources Research.
- 32 | **Dietze** M, S Lagarde, E Halfi, J Laronne, J Turowski (accepted). Joint sensing of bedload flux and water depth by seismic data inversion. - Water Resources Research. DOI: 10.1029/2019WR026072.
- 31 | Cook KL, M **Dietze** (2019). A simple workflow for robust low-cost UAV-derived change detection without ground control points, Earth Surf. Dynam.7, 1009-1017. DOI: 10.5194/esurf-7-1009-2019.
- 30 | **Dietze** M, F Gimbert, JM Turowski, KA Stark, D Cadol, JB Laronne. (2019). The seismic view on sediment laden ephemeral flows – modelling of ground motion data for fluid and bedload dynamics in the Arroyo de los Piños, (Conference proceedings). Sedhyd Conference 2019 (Reno, U.S.A.).
- 29 | Dietze E, D Brykała, LT Schreuder, K Jażdżewski, O Blarquez, A Brauer, M **Dietze**, M Obremska, F Ott, A Pieńczewska, S Schouten, EC Hopmans, M Słowiński. (2019). Human-induced fire regime shifts during 19th century industrialization: A robust fire regime reconstruction using northern Polish lake sediments. PLoS ONE 14(9): e0222011. DOI: 10.1371/journal.pone.0222011.
- 28 | Dietze E, M **Dietze** (2019). Grain-size distribution unmixing using the R package EMMAgeo, E&G Quaternary Sci. J., 68, 29-46, DOI: 10.5194/egqsj-68-29-2019.
- 27 | **Dietze**, M (2018). The R package "eseis" – a software toolbox for environmental seismology, Earth Surface Dynamics 6. 669-686. DOI: 10.5194/esurf-6-669-2018.
- 26 | Zeeden, C, M **Dietze**, S Kreutzer. (2018). Discriminating luminescence age uncertainty composition for a robust Bayesian modelling. Quaternary Geochronology 43. 30-39. DOI: 10.1016/j.quageo.2017.10.001.

- 25 | **Dietze**, M, JM Turowski, KL Cook, N Hovius (2017). Spatiotemporal patterns, triggers and anatomies of seismically detected rockfalls. *Earth Surface Dynamics* 5. 757-779. DOI: 10.5194/esurf-5-757-2017.
- 24 | **Dietze**, M, S Mohadjer, JM Turowski, TA Ehlers, N Hovius (2017). Seismic monitoring of small alpine rockfalls – validity, precision and limitations, *Earth Surface Dynamics* 5. 653-668.. DOI: 10.5194/esurf-5-653-2017.
- 23 | Kreutzer, S, C Burow, M **Dietze**, MC Fuchs, M Fischer, C Schmid. (2017). Software in the context of luminescence dating: status, concepts and suggestions exemplified by the R package 'Luminescence'. *Ancient TL* 35. 1-11.
- 22 | Burow, C, S Kreutzer, M **Dietze**, MC Fuchs, M Fischer, C Schmid, H Brückner. (2016). A graphical user interface for the R Package 'Luminescence'. *Ancient TL* 34. 22-32.
- 21 | **Dietze**, M, E Dietze, J Lomax, M Fuchs, A Kleber, SG Wells (2016). Environmental history recorded in aeolian deposits under stone pavements, Mojave Desert, USA. *Quaternary Research* 85. 4-16. DOI: 10.1016/j.yqres.2015.11.007.
- 20 | **Dietze**, M, S Kreutzer, C Burow, MC Fuchs, M Fischer, C Schmidt (2016). The abanico plot: Visualising chronometric data with individual standard errors. *Quaternary Geochronology* 31. 12-18. DOI: 10.1016/j.quageo.2015.09.003.
- 19 | Fuchs, M, M **Dietze**, K Al-Qudah, J Lomax (2015). Dating desert pavements - First results from a challenging archive. *Quaternary Geochronology* 30. 342-349. DOI: 10.1016/j.quageo.2015.01.001.
- 18 | Fuchs, M, S Kreutzer, C Burow, M **Dietze**, M Fischer, C Schmidt, M Fuchs (2015). Data processing in luminescence dating analysis: An exemplary workflow using the R package 'Luminescence'. *Quaternary International* 362. 8-13. DOI: 10.1016/j.quaint.2014.06.034.
- 17 | **Dietze**, M, S Kreutzer, MC Fuchs, C Burow, M Fischer, C Schmidt (2013). A practical guide to the R package Luminescence. *Ancient TL* 34. 11-18.
- 16 | Francus P, H von Suchodoletz, M **Dietze**, R Donner, F Bouchard, AJ Roy, M Fagot, D Verschuren, S Kröpelin (2013). Varved sediments of Lake Yoa (Ounianga Kebir, Chad) reveal progressive drying of the Sahara during the last 6.100 years. *Sedimentology*. DOI: 10.1111/j.1365-3091.2012.01370.x
- 15 | **Dietze** M, J Groth, A Kleber (2013). Alignment of stone pavement clasts by unconcentrated overland flow – implications of numerical and physical modelling. *Earth Surface Processes and Landforms* 38. 1234-1243. DOI: 10.1002/esp.3365.
- 14 | **Dietze** M, S Bartel, M Lindner, A Kleber (2012). Formation mechanisms and control factors of vesicular soil structure. *Catena* 99. 83-96. DOI: 10.1016/j.catena.2012.06.011.
- 13 | Kreutzer S, C Schmidt, MC Fuchs, M, **Dietze**, M Fischer, M Fuchs (2012). Introducing an R package for luminescence dating analysis. *Ancient TL* 30. 1-8.
- 12 | Suchodoletz, H von, H Blanchard, A Hilgers, U Radtke, M Fuchs, M **Dietze**, L Zöller (2012). TL and ESR-dating of Middle Pleistocene lava flows on Lanzarote island, Canary Islands (Spain). *Quaternary Geochronology* 9. 54-64. DOI: 10.1016/j.quageo.2012.01.002.
- 11 | **Dietze** M, A Kleber (2012). Contribution of lateral processes to stone pavement formation in deserts inferred from clast orientation patterns. *Geomorphology* 139-140. 172-187. DOI: 10.1016/j.geomorph.2011.10.015.

- 10 | **Dietze** M, S Muhs, E Dietze (2011). Ambiguities of relative age indicators on abandoned surfaces of arid environments. *Zeitschrift für Geomorphologie* 55 Suppl. 3. 49-75. DOI: 10.1127/0372-8854/2011/0055S3-0051.
- 9 | **Dietze** M, A Kleber (2010). Characterisation and prediction of thickness and material properties of periglacial cover beds, Tharandter Wald. *Geoderma* 156. 346-356. DOI: 10.1016/j.geoderma.2010.03.004.
- 8 | Ullrich B, M **Dietze**, F Haubrich (2010). New results of the bentonitisation of the Wilsdruff-Potschappel Porphyrite near Dresden (Saxony). *Geologica Saxonica* 56. 115-125.
- 7 | Suchodoletz H von, P Kühn, U Hambach, M **Dietze**, L Zöller, D Faust (2009). Loess-like and palaeosol sediments from Lanzarote (Canary Islands/Spain) - Indicators of palaeoenvironmental change during the Late Quaternary. *Palaeogeography, Palaeoclimatology, Palaeoecology* 278. 71-87. DOI: 10.1016/j.palaeo.2009.03.019.
- 6 | **Dietze** M, A Kleber, B Ullrich (2008). Investigation and modelling of material properties of periglacial layers (Tharandt Forest, Saxony, Germany). *Abhandlungen der Geologischen Bundesanstalt* 62. 39-44.
- 5 | **Dietze** M, F Haubrich, T Klinger, B Ullrich (2007). Smectite im Porphyrit von Wurgwitz bei Dresden (Sachsen, Deutschland). *Geologica Saxonica* 52/53. 97-115.

Other publications

- 4 | Turowski, JM, M **Dietze**, A Schöpa, A Burtin, N Hovius (2016). Vom Flüstern, Raunen und Grollen der Landschaft. *Seismische Methoden in der Geomorphologie. System Earth (GFZ-Journal)* 16-1. 56-62.
- 3 | Kleber A, M **Dietze** (2008). Periglaziale Hangsedimente und Kolluvien im Tharandter Wald. *DBG-Mitteilungen* 111. 355-380.
- 2 | Faust, D, A Kleber, P Schreiber, S Meszner, D Wolf, M **Dietze**, F Haubold, C Hamann (2007). Exkursionsführer zur 26. Jahrestagung des Arbeitskreises Paläopedologie in Dresden. - Deutsche Bodenkundliche Gesellschaft - Arbeitskreis Paläopedologie.
- 1 | Faust D, A Kleber, C Lorz, P Schreiber, S Meszner, D Wolf, M **Dietze**, F Haubold (2006). Löss in Sachsen - Exkursionsführer zum 32. Jahrestagung des AKG, Dresden.