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Curriculum Vitae

Educational Background

2005 **Dr. rer. nat. Geoscience**, *Institute of Geoscience, University of Potsdam*, Germany

2000 **Diplom Geowissenschaften**, *Institute of Geoscience, University of Potsdam*, Germany

1998 **Vordiplom Geophysik und Informatik**, *University of Potsdam*, Germany

Employment History

2017–2018 **Varahamihira Ministry of Science Chari Professor**, *Indian Technology Institute (IIT) Gandhinagar*, Visiting Professor

2014–2020 **Chair of Geological Remote Sensing (W3)**, *Institute for Earth- and Environmental Science (now: Institute of Geosciences), University of Potsdam*

2014–2020 **Affiliated Assoc. Professor**, *Geography Dept., UC Santa Barbara*

2011–2014 **Assoc. Professor (tenured)**, *Geography Dept., UC Santa Barbara*

2008–2014 **Affiliated Faculty**, *Dept. of Earth Sciences, UC Santa Barbara*

2008–2011 **Asst. Professor**, *Geography Dept., UC Santa Barbara*

2006–2007 **Postdoctoral researcher**, *GES, Stanford University*

2005–2006 **Assistant Researcher**, *Institute for Crustal Studies, UC Santa Barbara*

2002–2004 **Research Assistant**, *University of California, Berkeley*

2001–2002 **DAAD Stipend**, *University of California, Berkeley*

2001–2005 **DFG PhD student**, *University of Potsdam*

1996–2001 **Computer coder at a private computer company**, *Berlin, Germany*

Research Interests

Remote Sensing
- Passive Microwaves: rainfall, snow-water equivalent and soil moisture
- SAR coherence and interferometry
- Pointclouds, lidar, and Structure-from-Motion

Digital Data Processing
- Pointcloud classification and machine learning
- Image processing, filtering, and classification
- Clustering of time series and geographic data
- Identification of hydroclimatic and geomorphic extreme events in space and time

Earth Surface Processes
- Sediment Transport: Field- and spaceborne measurements
- Cosmogenic Nuclides: surface exposure dating, erosion-rate measurements
- Decadal to Centennial surface deformation

Professional Affiliations

AGU (2000-2022), EGU (2000-2023), AGG (2007-2016), DGV (2005-2022)

Honors

2005 **DFG Bernd Rendel-Preis**

2004 **Publikationspreis Leibnizkolleg Potsdam**

Grants and Funding

2024–2027 **EU**, *Climate tectonics interactions using big data-informed models (2 PhD projects within a MSCA Doctoral Networks)*, 600k €, 101168687

2022–2025 **DFG**, *Tektonisch-geomorphologische Kontrolle bei der Lokalisierung vulkanischer Eruptionszentren im magmatischen Boden der Südanden von Chile*, 300k €, BO BO 2933/6-1

2022 **IDB**, *Geo-SENECA: Geodata-SciEnce iN thE Central Andes*, 100k $

2017–2022 **AvH**, *Validating remote sensing data with in-situ measurements for improving soil moisture estimates and water resource management: Technology demonstration from lowlands and highlands in India*, 55k €

2017–2021 **DFG**, *Erstellen einer jährlichen und langzeitigen Zeitreihe von Bergstürzen und Hangerosion in den NW Argentinischen Anden*, 358k €, BO 2933/3-1

2015–2021 **DFG**, *Surface Processes, Tectonics and Georesources*, 250k €, IRTG IGK2018
(2 subprojects in the DFG Graduate School)

2019–2020 **BMBF**, *LIDAR - Landslides, satellites, and drones in Argentina*, 50k €, 01DN18046 CLIENT II

2019 **EFRE Infrastruktur**, *Computer Cluster*, 80k €

2019 **EFRE Infrastruktur**, *Drohne2019: Fixed-Wing UAV*, 190k €

2019–2020 **BMBF**, *ORYCS: Options for sustainable land use adaptations in savanna systems*, 120k €
(subproject)

2018–2021 **BMBF**, *DIGENTI - Digitaler Entscheidertisch für das Naturgefahrenmanagement auf Basis von Satellitendaten und VGI (Volunteered Geographic Information)*, 150k €, 50RP1502

2015–2019 **NSF**, *Bedrock nitrogen and the Earth system: From geobiolgical mechanisms to climate change forecasts*, $406k, 1411309

2011–2016 **NSF**, *The Pamir Frontal Thrust System: Rates, Style, and Controls on Deformation*, $275k, 1050070

2010–2015 **NSF**, *Climate Variability and Impacts on Regional Surface Runoff in High Asia Mountains*, $563k, 1116105

2010–2013 **NASA**, *Volumetric Glacial Changes in the Central Andes During the Past Four Decades: Climate Change, Debris Coverage, or ENSO Variability?*, $90k, NNX11AL4GH

2009–2012 **NASA**, *ASTER-Derived River Widths and Their Spatial Implications for Erosion in the Tectonically Active Himalaya*, $90k, NNX09ACxxx

2009–2012 **NASA**, *Quantification of Climate-Erosion Coupling in the Himalaya*, $253k, NNX08AG05G

2010–2015 **NSF**, *Orogeny, Orography, and unsteady erosion: evolution of the Himalaya*, $280k, 0819874

2010–2011 **NSF**, *RAPID: Fires in coastal California: Watershed and ecological responses to an acute environmental disturbance*, $150k, 0952599

Service

At the University of Potsdam, BB designed and currently runs an international MSc program [Remote Sensing, geoInformation, and Visualization] and [DAAD Website]. This MSc is an interdisciplinary program bridging the disciplines of geography, geosciences, and computer sciences. BB serves as the head of the examination board of the MSc Remote Sensing, geoInformation and Visualization and MSc Geoinformation und Visualisierung [link]. BB serves as the head of the Study Commission of the [MSc Remote Sensing, geoInformation, and Visualization]. BB serves as the speaker (together with Prof. Thieken) of the Research Focus Area [Earth and Environmental Systems]. BB founded the [NEXUS: Earth Surface Dynamics] to bridge the gap between various geoscientific and geographic disciplines. BB maintains a geochemical laboratory for surface-exposure dating and makes this facility available to the national and international community. He previously designed and build up similar chemical laboratories at Stanford University and UC Santa Barbara.

Review

Peer reviews for funding agencies (NSF, NASA, DFG, SNF) and peer reviews for journals (Science, nature communication, nature geosciecen, nature climate change, Science Advances, Journal of Geophysical Research, Earth and Planetary Science Letters, Geomorphology, Earth Surface Processes and Landforms, and other journals).

Publications

172 peer reviewed journal articles, h-index of 74, 20,252 citations (Google Scholar). Additional citation information and metrics are available on [Google Scholar], [ORC ID], and [**R** Publons or Researcher-ID].
[List] of complete publications.

Edited Books

Himalayan Weather and Climate and their Impact on the Environment, Editors: Dimri, A.P., Bookhagen, B., Stoffel, M., Yasunari, T., Springer, ISBN 978-3-030-29683-4, [book link]

Publications of the last 7 years.

Peer Reviewed Journal Articles

2025 [58] Valentina Armeni, Lorenzo Mantiloni, Bodo Bookhagen, Eleonora Rivalta, Valerio Acocella, and Manfred R. Strecker. "Spatial patterns of volcanism between adjacent rift segments". In: *Earth and Planetary Science Letters* 671, p. 119623. ISSN: 0012-821X. DOI: https://doi.org/10.1016/j.epsl.2025.119623. URL: https://www.sciencedirect.com/science/article/pii/S0012821X25004212.

[57] Laura Flores, Claas Nendel, Bodo Bookhagen, Jorge Adrián Oviedo Reyes, Taylor Smith, and Gohar Ghazaryan. "The potential of Sentinel-1 time series for large-scale assessment of maize and wheat phenology across Germany". In: *GIScience & Remote Sensing* 62.1, p. 2531593. DOI: 10.1080/15481603.2025.2531593. eprint: https://doi.org/10.1080/15481603.2025.2531593. URL: https://doi.org/10.1080/15481603.2025.2531593.

[56] Max Hess, Aljoscha Rheinwalt, and Bodo Bookhagen. "Refining point-cloud neighborhood construction for improved classification". In: *Science of Remote Sensing*, p. 100325. ISSN: 2666-0172. DOI: https://doi.org/10.1016/j.srs.2025.100325. URL: https://www.sciencedirect.com/science/article/pii/S2666017225001312.

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onlinelibrary.wiley.com/doi/pdf/10.1029/2023WR036626. URL: https://agupubs.onlinelibrary.wiley.com/doi/abs/10.1029/2023WR036626.

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surface meshes". In: *Earth Surface Dynamics* 13.5, pp. 923–940. DOI: 10.5194/esurf-13-923-2025. URL: https://esurf.copernicus.org/articles/13/923/2025/.

2024 [51] A. Erbello, C. Colleps, D. Melnick, E. R. Sobel, B. Bookhagen, H. Pingel, G. Zeilinger, P. van der Beek, and M. R. Strecker. "Magma-Assisted Continental Rifting: The Broadly Rifted Zone in SW Ethiopia, East Africa". In: *Tectonics* 43.1. e2022TC007651 2022TC007651, e2022TC007651. DOI: https://doi.org/10.1029/2022TC007651. eprint: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2022TC007651. URL: https://agupubs.onlinelibrary.wiley.com/doi/abs/10.1029/2022TC007651.

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2023 [47] Sohini Bhattacharjee, Bodo Bookhagen, Rajiv Sinha, Alexander Wieser, and Oscar Marchhart. "26Al and 10Be concentrations from alluvial drill cores across the Indo-Gangetic plain reveal multimillion-year sediment-transport lag times". In: *Earth and Planetary Science Letters* 619, p. 118318. ISSN: 0012-821X. DOI: https://doi.org/10.1016/j.epsl.2023.118318. URL: https://www.sciencedirect.com/science/article/pii/S0012821X2300331X.

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2021 [38] Dongfeng Li, Xixi Lu, Irina Overeem, Desmond E. Walling, Jaia Syvitski, Albert J. Kettner, Bodo Bookhagen, Yinjun Zhou, and Ting Zhang. "Exceptional increases in fluvial sediment fluxes in a warmer and wetter High Mountain Asia". In: *Science* 374.6567, pp. 599–603. DOI: 10.1126/science.abi9649. eprint: https://www.science.org/doi/pdf/10.1126/science.abi9649. URL: https://www.science.org/doi/abs/10.1126/science.abi9649.

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[35] Benjamin Purinton and Bodo Bookhagen. "Tracking Downstream Variability in Large Grain-Size Distributions in the South-Central Andes". In: *Journal of Geophysical Research: Earth Surface* 126.8. e2021JF006260 2021JF006260, e2021JF006260. DOI: https://doi.org/10.1029/2021JF006260. eprint: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2021JF006260. URL: https://agupubs.onlinelibrary.wiley.com/doi/abs/10.1029/2021JF006260.

[34] Maryam Ramezani Ziarani, Bodo Bookhagen, Torsten Schmidt, Jens Wickert, Alejandro de la Torre, Zhiguo Deng, and Andrea Calori. "A Model for the Relationship between Rainfall, GNSS-Derived Integrated Water Vapour, and CAPE in the Eastern Central Andes". In: *Remote Sensing* 13.18. ISSN: 2072-4292. DOI: 10.3390/rs13183788. URL: https://www.mdpi.com/2072-4292/13/18/3788.

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[32] Taylor T. Smith, A. Rheinwalt, and Bodo Bookhagen. "Topography and Climate in the Upper Indus Basin: Mapping Elevation-Snow Cover Relationships". In: *Science of the Total Environment*. DOI: -.

[31] K. Stuebner, Bodo Bookhagen, M. Gadoev, Merchel, and J. S. Lachner. "Unravelling the Pleistocene glacial history of the Pamir Mountains, Central Asia". In: *Quaternary Science Reviews*. DOI: 10.1016/j.quascirev.2021.106857.

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2020 [29] Fabiana Castino, Bodo Bookhagen, and A. de la Torre. "Atmospheric dynamics of extreme discharge events from 1979 to 2016 in the southern Central Andes". In: *Climate Dynamics* 55.11, pp. 3485–3505. ISSN: 1432-0894. DOI: 10.1007/s00382-020-05458-1.

[28] Robert Milewski, Sabine Chabrillat, and Bodo Bookhagen. "Analyses of Namibian Seasonal Salt Pan Crust Dynamics and Climatic Drivers Using Landsat 8 Time-Series and Ground Data". In: *Remote Sensing* 12.3. DOI: 10.3390/rs12030474.

[27] Stephanie Olen and Bodo Bookhagen. "Applications of SAR Interferometric Coherence Time Series: Spatiotemporal Dynamics of Geomorphic Transitions in the South-Central Andes". In: *Journal of Geophysical Research: Earth Surface* 125.3. e2019JF005141, e2019JF005141. DOI: 10.1029/2019JF005141.

[26] Benjamin Purinton and **Bodo Bookhagen**. "Multiband (X, C, L) radar amplitude analysis for a mixed sand- and gravel-bed river in the eastern Central Andes". In: *Remote Sensing of Environment* 246, p. 111799. ISSN: 0034-4257. DOI: 10.1016/j.rse.2020.111799.

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[24] Iris van der Veen, Francien Peterse, Jesse Davenport, Bernd Meese, **Bodo Bookhagen**, Christian France-Lanord, Ansgar Kahmen, Hima J. Hassenruck–Gudipati, Ananta Gajurel, Manfred R. Strecker, and Dirk Sachse. "Validation and calibration of soil 2H and brGDGTs along (E-W) and strike (N-S) of the Himalayan climatic gradient". In: *Geochimica et Cosmochimica Acta* 290, pp. 408–423. ISSN: 0016-7037. DOI: 10.1016/j.gca.2020.09.014.

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2019 [22] Niklas Boers, Bedartha Goswami, Aljoscha Rheinwalt, Bodo Bookhagen, Brian Hoskins, and Juergen Kurths. "Complex networks reveal global pattern of extreme-rainfall teleconnections". In: *nature* 566.7744, pp. 373+. ISSN: 0028-0836. DOI: 10.1038/s41586-018-0872-x.

[21] Maximilian Brell, Karl Segl, Luis Guanter, and Bodo Bookhagen. "3D hyperspectral point cloud generation: Fusing airborne laser scanning and hyperspectral imaging sensors for improved object-based information extraction". In: *ISPRS Journal of Photogrammetry and Remote Sensing* 149, pp. 200–214. ISSN: 0924-2716. DOI: 10.1016/j.isprsjprs.2019.01.022.

[20] Frederic Brieger, Ulrike Herzschuh, Luidmila A. Pestryakova, Bodo Bookhagen, Evgenii S. Zakharov, and Stefan Kruse. "Advances in the Derivation of Northeast Siberian Forest Metrics Using High-Resolution UAV-Based Photogrammetric Point Clouds". In: *Remote Sensing* 11.12. ISSN: 2072-4292. DOI: 10.3390/rs11121447.

[19] Fiona J. Clubb, Bodo Bookhagen, and Aljoscha Rheinwalt. "Clustering River Profiles to Classify Geomorphic Domains". In: *Journal of Geophysical Research-Earth Surface* 124.6, pp. 1417–1439. ISSN: 2169-9003. DOI: 10.1029/2019JF005025.

[18] David Loibl, Bodo Bookhagen, Sebastien Valade, and Christoph Schneider. "OSARIS, the "Open Source SAR Investigation System" for Automatized Parallel InSAR Processing of Sentinel-1 Time Series Data With Special Emphasis on Cryosphere Applications". In: *Frontiers in Earth Science* 7. ISSN: 2296-6463. DOI: 10.3389/feart.2019.00172.

[17] Silke Merchel, Andreas Gaertner, Sabrina Beutner, Bodo Bookhagen, and Amelie Chabilan. "Attempts to understand potential deficiencies in chemical procedures for AMS: Cleaning and dissolving quartz for Be-10 and Al-26 analysis". In: *Nuclear Instruments & Methods in Physics Research Section B-beam Interactions with Materials and Atoms* 455, pp. 293–299. ISSN: 0168-583X. DOI: 10.1016/j.nimb.2019.02.007.

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[15] Aljoscha Rheinwahlt, Bedartha Goswami, and Bodo Bookhagen. "A Network-Based Flow Accumulation Algorithm for Point Clouds: Facet-Flow Networks (FFNs)". In: *Journal of Geophysical Research-Earth Surface* 124.7, pp. 2013–2033. ISSN: 2169-9003. DOI: 10.1029/2018JF004827.

[14] Taylor T. Smith, Aljoscha Rheinwalt, and Bodo Bookhagen. "Determining the optimal grid resolution for topographic analysis on an airborne lidar dataset". In: *Earth Surface Dynamics* 7.2, pp. 475–489. ISSN: 2196-6311. DOI: 10.5194/esurf-7-475-2019.

[13] Kanayim Teshebaeva, Helmut Echtler, Bodo Bookhagen, and Manfred Strecker. "Deep-seated gravitational slope deformation (DSGSD) and slow-moving landslides in the southern Tien Shan Mountains: new insights from InSAR, tectonic and geomorphic analysis". In: *Earth Surface Processes and Landforms* 44.12, pp. 2333–2348. ISSN: 0197-9337. DOI: 10.1002/esp.4648.

[12] Syee Weldeab, Carsten Ruehlemann, Bodo Bookhagen, Francesco S. R. Pausata, and Fabiola M. Perez-Lua. "Enhanced Himalayan Glacial Melting During YD and H1 Recorded in the Northern Bay of Bengal". In: *Geochemistry Geophysics Geosystems* 20.5, pp. 2449–2461. ISSN: 1525-2027. DOI: 10.1029/2018GC008065.

[11] Maryam Ramezani Ziarani, Bodo Bookhagen, Torsten Schmidt, Jens Wickert, Ale1dro de la Torre, and Rodrigo Hierro. "Using Convective Available Potential Energy (CAPE) and Dew-Point Temperature to Characterize Rainfall-Extreme Events in the South-Central Andes". In: *Atmosphere* 10.7. DOI: 10.3390/atmos10070379.

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