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PROFESSIONAL APPOINTMENTS

From 04.2023: **Professor (Tenure Track)**
 Ludwig-Maximilians-Universität München, Germany

10.2021 – 03.2023: **Postdoctoral Scholar**
 German Research Centre for Geosciences, Potsdam, Germany

10.2019 – 09.2021: **Marie Skłodowska-Curie Postdoctoral Fellow**
 German Research Centre for Geosciences, Potsdam, Germany

04.2017 – 10.2019: **Postdoctoral Scholar**
 German Research Centre for Geosciences, Potsdam, Germany

09.2013 – 12.2016: **Graduate Student Researcher**
 Department of Earth Science, University of California, Santa Barbara, USA

06.2015 – 09.2015: **Intern**
 ConocoPhillips, Houston, Texas, USA

03.2015 – 06.2015: **Instructor**
 Department of Earth Science, University of California, Santa Barbara, USA

Parental Leave: **Equivalent to 8 months at 100%:**
 First child: 100% from 01.2023 – 02.2023
 Second child: 50% from 10.2024 – 09.2025

EDUCATION

09.2011 – 03.2017: **PhD, Earth Science**
University of California, Santa Barbara, USA
 PhD thesis: *Controls on uplift and planation of active structures in the foreland of the Tian Shan*
 Thesis adviser: Douglas W. Burbank
 Thesis committee: Bodo Bookhagen (U. Potsdam), Thomas Dunne (UCSB)

10.2007 – 06.2011: **BA & MSci, Natural Sciences (Geology), (First Class)**
University of Cambridge, Cambridge, UK
Top of the class in Geology in 2009 & 2010
 MSci thesis: *The thermal aureole of the Skaergaard intrusion*
 Thesis adviser: Marian B. Holness

07.2006: **French Baccalauréat & German Abitur**
 Lycée International, Saint-Germain-en-Laye, France

RESEARCH GRANTS AND FELLOWSHIPS (Total: €1,712,294 as PI | €10,000 as Co-PI)

- 2024: **European Research Council: Starting Grant (PI)**
Project: *Floodplain Weathering (Flow)*
Budget: €1,498,739
- 2021: **German Research Centre for Geosciences: Expedition Fund (Co-PI)**
Project: *Impact of extreme events on sediment & biogeochemical fluxes*
Budget: €10,000
- 2019: **European Union: Marie Skłodowska-Curie Individual Fellowship (PI)**
Project: *Weathering in bedrock landslide deposits (WETSLIDE)*
Budget: €162,806
- 2015: **Earthscope: Geochronology Award (PI)**
Project: *Investigating deformation in the wake of the Yellowstone hotspot using markers along the Snake River*
Budget: \$7,000
- 2014: **Geological Society of America: Graduate Student Research Grant (PI)**
Additional support for project: *Using physical experiments to study the influence of sediment flux on river – fold interactions in western China*
Budget: \$1,500
- 2014: **University of California, Santa Barbara, Earth Research Institute: Summer Fellowship (PI)**
Additional support for project: *Using physical experiments to study the influence of sediment flux on river – fold interactions in western China*
Budget: \$1,500
- 2013: **University of California, Santa Barbara, Department of Earth Science: Graduate Opportunity Award (PI)**
Project: *Using physical experiments to study the influence of sediment flux on river – fold interactions in western China*
Budget: \$4,000
- 2012: **German Academic Exchange Service (DAAD): Doctoral Student Scholarship (PI)**
Project: *Active deformation in the Pamir-Tian Shan collision zone*
Budget: €36,749

Supported Research Grants and fellowships (Total: €242,052 as Host | €135,000 as Co-Host)

- 2025 **CSC Visiting Fellowship to Prof. Shun Li (Host)**
Project: *Carbon fluxes of the Yarlung Tsangpo-Brahmaputra Rivers*
Budget: €17,300
- CSC Fellowship to Xiaobao Gao (Host)**
Project: *Chemical weathering from mountains to floodplains in the Yarlung Tsangpo-Brahmaputra River basin*
Budget: €24,300
- 2024: **DAAD PRIME Fellowship to Dr. Albert Cabré (Host)**
Project: *Frequency-Magnitude relationships of debris flows in the Atacama Desert*
Budget: €164,152
- CSC Fellowship to Ao Liu (Host)**
Project: *Oxidative weathering during the Artinskian warming event*
Budget: €24,300

2023: **Swiss Postdoctoral Fellowships to Dr. Yuezhi Zhong (Co-Host)**
 Project: *Impact of rock uplift on bedrock channel meandering and channel sinuosity*
 Budget: CHF 131,050

2022: **CSC Fellowship to Sen Xu (Host)**
 Project: *Links between erosion and weathering on the eastern Qinghai-Tibet Plateau*
 Budget: €9,000

AWARDS AND HONORS

2020: German Working Group for Geomorphology: Lecture award
 2015: University of California, Santa Barbara: Alumni Graduate Award for Research Excellence
 2013: Lloyd and & Mary Edwards: Field Studies Fellowship
 2011: University of California, Santa Barbara: Regents Special Fellowship
 2010: King's College, Cambridge: Scholarship for academic achievements
 2009: King's College, Cambridge: Scholarship for academic achievements
 2009: British Petrol: Scholarship for best undergraduate geologic mapping project

STUDENT SUPERVISION SINCE 2018

Postdoc (1) Albert Cabré (Primary advisor; 2024 – present)
Frequency-Magnitude relationships of debris flows in the Atacama Desert

PhD (1) Hao-Wei Huang (Primary advisor; 2025 – present)
Sediment transport and weathering in the Madeira catchment

Visit. PhD (2) Ao Liu. CUG, Wuhan, China (Co-advisor; 2025 – present)
Oxidative weathering during the Artinskian warming event
 Sen Xu. Tianjin University, China. (Co-advisor; 2022)
Links between erosion and weathering on the eastern Qinghai-Tibet Plateau

Master (4) Kaja Schultz (Primary advisor; 2024 – 2025)
Weathering fluxes under moderate erosion rates – the case of the Black Forest, Germany
 Monika Pfau (Primary advisor; 2022 – 2024)
Mobilisierung von organischem Kohlenstoff durch die Jahrhundertflut 2021 im Ahrtal
 Alexander Gessner (Primary advisor; 2020 – 2024)
Quantifying timescales of organic matter build-up in landslide deposits: Insights from the Southern Alps of New Zealand
 Theresa Binder (Primary advisor; 2018 – 2019)
Timescales of carbonate and silicate weathering in morainal hillslopes

Bachelor (3) Vincent Müller (Primary advisor; 2025 – present)
Verwitterung im Schwarzwald
 Sophie Aichner (Primary advisor; 2025)
Wechselwirkung zwischen Bodenbildung und dem Mikrobiom in Gletschervorfeldern
 Marcel Schwörer (Primary advisor; 2024)
Geology of anticlinal structures in the Oberstdorf region using the example of the Burgberg (Helvetikum)

TEACHING

- Since 2023: **As professor** at LMU München (**9h per semester; 6h from 2025 – present**)
 Bachelor: Karten und Profile; Sedimentgeologische Profilaufnahme; Einführende und weiterführende Geländeübungen, Exogene Dynamik, Kartierübung Kreta, Tektonische Geomorphologie und Sedimentologie
 Master & PhD: Advanced Earth Surface Dynamics, Post-graduate seminar
- 2018 – 2022: **As guest lecturer** at FU Berlin, Univ. of Potsdam, TU Munich (**34h**)
 Bachelor: Allgemeine Physische Geographie, Earth System Science, Exogene Dynamik, Sedimentology
 Master: A Systems Approach to Earth Sciences, Sedimentary Systems: From source to sink
- 2012 – 2015: **As graduate lecturer & teaching assistant.** UC Santa Barbara (**120h**)
 Bachelor: Geological Application of GIS, Geological Catastrophes, Structural Geology

SYNERGISTIC ACTIVITIES AND SERVICE

- Since 2023: **PhD committee member.** (Total 12, Chair 2)
- Since 2017: **Paper and proposal reviews** (93 reviews of 61 individual documents).
 Agence Nationale de la Recherche (ANR), American Journal of Science (AJS); Applied Geochemistry; Catena; Chemical Geology; Earth and Planetary Science Letters (EPSL); Earth-Science Reviews; Earth Surface Dynamics (Esurf); Earth Surface Processes and Landforms (ESPL); Elements; Geochimica et Cosmochimica Acta (GCA); Geology; Geomorphology; Geophysical Research Letters (GRL); Geosciences; GSA Bulletin (GSAB); Global and Planetary Change (GPC); JGR: Earth Surface; JGR: Solid Earth; Journal of Hydrology; Lithosphere; National Science Foundation (NSF); Nature; Nature Communications; Nature Geoscience; Science Advances; Sedimentology; Tectonics; Tectonophysics
- Since 2017: **Session (co-)convener at conferences** (Total 10)
 American Geophysical Union (AGU): 2017
 European Geosciences Union (EGU): 2018 – 22
 German Geological Society (DGGV): 2023
 German Society of Geomorphology (DGGM): 2021
 Goldschmidt: 2023
- 2019 – 2022: **Co-founder, network for climate action.** Employee initiative and network for climate action across all research centres within the Helmholtz Association
- 2019 – 2022: **Co-organizer, lecture series.** Earth Surface Dynamics distinguished lecture series across sections of the German Research Centre of Geosciences
- 2018 – 2019: **Co-organizer, seminar.** German Research Centre of Geosciences
- 2014: **Graduate student representative.** University of California, Santa Barbara
- 2013: **Co-organizer, graduate alumni career panel.** University of California, Santa Barbara
- 2012 – 2013: **Co-organizer, department seminar.** University of California, Santa Barbara
- 2008 – 2009: **Teaching committee member.** Department of Earth Sciences, University of Cambridge

INVITED FIRST AUTHOR TALKS

- 2025: **International keynote talk.** Steepest Descent (EGU), Vienna, Austria
The sensitivity of the carbon cycle to mountain building
Department Seminar. China University of Geosciences, Wuhan, China
The sensitivity of the inorganic carbon cycle to erosion: Constraints from active mountain ranges
- 2024: **Society seminar.** German Sedimentology Lunch, Germany
The sensitivity of the inorganic carbon cycle to erosion: Constraints from active mountain ranges
Research group seminar. Tongji University, China
The sensitivity of the inorganic carbon cycle to erosion: Constraints from active mountain ranges
Research group seminar. Technical University of Munich, Germany
The sensitivity of the inorganic carbon cycle to erosion: Constraints from active mountain ranges
Research group seminar. ETH Zurich, Switzerland
The sensitivity of the inorganic carbon cycle to erosion: Constraints from active mountain ranges
- 2023: **Department Seminar.** University of Kiel, Germany
The sensitivity of the inorganic carbon cycle to erosion: Constraints from active mountain ranges
Department Seminar. University of California, Santa Barbara, USA
Non-linear impacts of erosion on the inorganic carbon cycle: Constraints from active mountain ranges
- 2022: **International conference talk.** Goldschmidt, Hawaii, USA
Erosion and chemical weathering of siliceous rocks at the supply and kinetic limits
Research group seminar. University of Oxford, UK
The impact of erosion on the inorganic carbon cycle: Constraints from active mountain ranges
Job Interview seminar. University of Salzburg, Austria
Of Sediments and Solutes – Linking Weathering and Erosion across Earth’s Surface
Department seminar. Colorado State University, USA
The impact of erosion on the inorganic carbon cycle: Constraints from silicate, carbonate, and sulfide weathering in southern Taiwan
Department seminar. University of Potsdam, Germany
The impact of erosion on the inorganic carbon cycle: Constraints from silicate, carbonate, and sulfide weathering in southern Taiwan
Job Interview seminar. Ludwig Maximilian University of Munich, Germany
Of Sediments and Solutes – Linking Weathering and Erosion across Earth’s Surface
- 2021: **Society seminar.** Munich GeoCenter
Impact of erosion on chemical weathering and the carbon cycle: Constraints from southern Taiwan
Research group seminar. University of Cambridge, UK
The impact of erosion on the co-variation of silicate, carbonate, and sulfide weathering
Job Interview seminar. University of Oxford, UK
Of Sediments and Solutes – Linking Weathering and Erosion across Earth’s Surface
Society seminar. German Working Group for Geomorphology
Chemical Signatures of Landscapes
- 2020: **Research group seminar.** Victoria University of Wellington, New Zealand
Erosion-driven CO₂ emission due to coupled silicate, carbonate and sulfide weathering
- 2019: **International conference talk.** European Geosciences Union, Vienna, Austria
Temporal changes in rock uplift rates of folds in the foreland of the Tian Shan and the Pamir from geodetic and geologic data

- 2018: **Department seminar.** Free University of Berlin, Germany
Controls on channel migration and the lateral erosion by rivers
- Research group seminar.** University of Salzburg, Austria
Links between channel migration, landsliding, and chemical weathering
- Research group seminar.** Petrographic and Geochemical Research Centre, Nancy, France
Controls on the lateral erosion by rivers
- Research group seminar.** Swiss Federal Institute of Technology (ETH), Zurich, Switzerland
Controls on the lateral erosion by rivers
- 2016: **Research group seminar.** University of California, Los Angeles, USA
Rates and mechanics of fold uplift and lateral bedrock planation in a convergent foreland basin
- Research group seminar.** California Institute of Technology (Caltech), Pasadena, USA
Fluvial planation of actively uplifting anticlines
- Research group seminar.** University of Potsdam, Germany
Climatically controlled erosion of actively uplifting anticlines – evidence from physical experiments and field data
- Research group seminar.** German Research Centre for Geosciences, Potsdam, Germany
Climatically controlled erosion of actively uplifting anticlines – evidence from physical experiments and field data.

PEER REVIEWED ARTICLES

Summary

Number: N = 24 | 3 Nature Series | 1 Science family

Citations: Google h = 14, N = 838 | Scopus h = 14, N = 690 | ISI h = 14, N = 626

Field-weighted citation impact: Scopus 10-year FWCI: 2.39 | ISI 79th percentile

2025

- [24] Xu, S., **Bufo, A.**, Kemeny, P.C., Klaus, M., Zhong, J., Ma, T., Li, D., Li S.L., (2025). *Climate warming and strengthened hydrologic cycle accelerate CO₂ release from rock weathering.* **Geochimica et Cosmochimica Acta**, 407, 174-192
- [23] Dosch, S., Hovius, N., **Bufo, A.**, Repasch, M., Scheingross, J., Vieth-Hillebrand, A., Sachse, D. (2025). *CO₂ Fluxes Driven by Floodplain Morphology and Seasonality at the Rio Bermejo, Argentina.* **Journal of Geophysical Research: Biogeosciences**, 130(8), e2024JG008517
- [22] Turowski, J.M., McNab, F., **Bufo, A.**, Tofelde, S. (2025). *Width evolution of channel belts as a random walk.* **Earth Surface Dynamics**, 13(1), 97-117

2024

- [21] Erlanger, E., **Bufo, A.**, Paris, G., D'Angeli, I., Pisani, L., Kemeny, P.C., Stammeier, J., Haghypour, N., Hovius, N. (2024). *Geodynamics modulate deep CO₂ degassing and control of the central Apennines carbon budget.* **Nature Geoscience**, 17(5), 465-471
- [20] Xu, S., Li S-L., **Bufo, A.**, Zhong, J., Wen, H., Chen, S., Li, L. (2024). *Escalating carbon concentrations and fluxes in warming montane rivers draining the Qinghai-Tibet Plateau.* **Environmental Science & Technology**, 58(16), 7032-7044.
- [19] Turowski, J.M., **Bufo, A.**, Tofelde, S. (2024). *A process-based model for fluvial valley width.* **Earth Surface Dynamics**, 12(2), 493-514
- [18] **Bufo, A.**, Rugenstein, J.K.C., Hovius, N. (2024). *CO₂ drawdown from weathering maximized at moderate erosion rates.* **Science**, 383(6687), 1075-1080

- [17] Xu, S., **Bufo, A.**, Li S.L., Erlanger, E.D., Ran, L., Zhong, J., Yang, C.J., Zhang, L., Ma, T., Sachse, D. (2024). *Erosional modulation of the balance between alkalinity and acid generations from rock weathering*. **Geochimica et Cosmochimica Acta**, 368, 126-146

2023

- [16] Roda-Boluda, D.C., Schildgen, T.F., Wittmann, H., Tofelde, S., **Bufo, A.**, Prancevic, J., Hovius, N. (in press). *Elevation-dependent periglacial and paraglacial processes modulate tectonically-controlled erosion of the Western Southern Alps, New Zealand*. **Journal of Geophysical Research: Earth Surface**, 128(11), e2023JF007271

2022

- [15] Tofelde, S., **Bufo, A.**, Turowski, J.M. (2022). *Hillslope sediment supply limits alluvial valley width*. **AGU Advances**, 3, e2021AV000641
- [14] **Bufo, A.**, Cook, K.L., Galy, A., Wittmann, H., Hovius, N. (2022). *The effect of lithology on the relationship between denudation rate and chemical weathering pathways – evidence from the eastern Tibetan Plateau*. **Earth Surface Dynamics**, 10(3), 513-530
- [13] Tuzlak, K., Pederson, J.L., **Bufo, A.**, Rittenour, T.M. (2022). *Patterns of incision and deformation on the southern flank of the Yellowstone hotspot from terraces and topography*. **Geological Society of America Bulletin**, 134(5-6), 1319-1333

2021

- [12] Erlanger E.D., Rugenstein, J.K.C., **Bufo A.**, Picotti V., Willett, S.D. (2021). *Controls on Physical and Chemical Denudation in a Mixed Carbonate-Siliciclastic Orogen*. **Journal of Geophysical Research: Earth Surface**. 126(8), e2021JF006064
- [11] **Bufo, A.**, Hovius, N., Emberson, R., Rugenstein, J.K.C., Galy, A., Hassenruck-Gudipati, H., Chang, J-M. (2021). *Co-variation of silicate, carbonate and sulfide weathering drives CO₂ release with erosion*. **Nature Geoscience**, 14(4), 211-216

2020

- [10] Savi, S., Tofelde, S., Wickert A.W., **Bufo, A.**, Schildgen, T.F., Strecker, M.R. (2020). *Interactions between channels and tributary alluvial fans: channel adjustments and sediment-signal propagation*. **Earth Surface Dynamics**, 8(2), 303-322

2019

- [9] Hoffmann, J., **Bufo, A.**, Caers J. (2019). *Morphodynamic Analysis and Statistical Synthesis of Geomorphic Data: Application to a Flume Experiment*. **Journal of Geophysical Research: Earth Surface**, 124(11), 2561-2578
- [8] **Bufo, A.**, Turowski, J.M., Burbank, D.W., Paola, C., Wickert, A.D., Tofelde, S. (2019). *Controls on the lateral migration rate of braided channel systems in coarse non-cohesive sediment*. **Earth Surface Processes and Landforms**, 44(14), 2823-2836
- [7] Tofelde, S., Savi, S., Wickert A.W., **Bufo, A.**, Schildgen, T.F. (2019) *Alluvial channel response to environmental perturbations: Fill-terrace formation and sediment-signal disruption*. **Earth Surface Dynamics**, 7(2), 609-631

2017

- [6] **Bufo, A.**, Burbank, D.W., Liu, L., Bookhagen, B., Chen, J., Qin, J., Li, T., Thompson Jobe, J.A., Yang, H. (2017). *Variations of Lateral Bedrock Erosion Rates Control Planation of Uplifting Folds in the Foreland of the Tian Shan, NW China*. **Journal of Geophysical Research: Earth Surface**, 122(12), 2431-2467
- [5] Thompson Jobe, J.A., Li, T., Chen, J., Burbank, D.W., **Bufo, A.** (2017). *Quaternary Tectonic Evolution of the Pamir-Tian Shan Collision Convergence Zone, Northwest China*. **Tectonics**, 36(12), 1944-19194

- [4] **Bufo, A.**, Bekaert, D., Hussain, E., Bookhagen, B., Burbank, D.W., Thompson, J.A., Chen, J., Li, T., Langtao, L., Gan, W. (2017). *Temporal changes in rock uplift rates of folds in the foreland of the Tian Shan and the Pamir from geodetic and geologic data*. **Geophysical Research Letters**, 44(21), 10977-10987

2016

- [3] **Bufo, A.**, Paola, C., Burbank, D.W. (2016). *Fluvial beveling of topography controlled by lateral channel mobility and uplift rate*. **Nature Geoscience**, 9(9), 706-710
- [2] Topal, S., Keller, E., **Bufo, A.**, Koçyiğit, A. (2016). *Tectonic geomorphology of a large normal fault: Akşehir fault, SW Turkey*. **Geomorphology**, 259, 55-69

2014

- [1] **Bufo, N. A.**, Holness, M. B., Humphreys, M.C.S. (2014). *Contact Metamorphism of Precambrian Gneiss by the Skaergaard Intrusion*. **Journal of Petrology**, 55, 1595-1617

OTHER PUBLICATIONS

- Bufo, A.**, von Blanckenburg, F. (2023), *Wasser als Regulator des Erdklimas*. **System Erde**, 13(1), 18-23
- Bufo, A.**, Hovius, N., Emberson, R., Rugenstein, J.K.C., Galy, A., Hassenruck-Gudipati, H., Chang, J-M. (2021). *Major element stream water chemistry, compiled 10Be erosion rates, and analyses of weathering across an erosion-rate gradient in southern Taiwan*. **GFZ Data Services**. Dataset
- Bufo, N. A.** (2017). *Rates and mechanics of fold uplift and lateral bedrock planation in convergent foreland basins*: **University of California, Santa Barbara**. PhD Thesis
- Bufo, A.**, Paola, C. & Burbank, D.W. (2016). *Fold Erosion by an Antecedent River*. **SEAD**. Dataset

CONFERENCE PROCEEDINGS

2025

- Zhong, Y., Turowski, J.M., **Bufo, A.**, Schildgen, T. (2025). *Impact of rock uplift on bedrock-valley width and channel sinuosity*. EGU General Assembly. Vienna, Austria
- Cabré, A., Mather, A., **Bufo, A.**, Lang, A. (2025). *Interactions between aeolian dune fields and debris flows in alluvial fans*. EGU General Assembly. Vienna, Austria
- Turowski, J.M., McNab, F., **Bufo, A.**, Tofelde, S., Zhong, Y. (2025). *A random walk perspective on channel belts and fluvial valleys: model and evidence*. EGU General Assembly. Vienna, Austria
- Bufo, A.**, Zhang, L., Dean, J.F., Rocher-Ros, G., Stanley, E.H., Sponseller, R.A., Butman, D.E., Karlsson, J., Liu, R., Battin T.J. (2025). *Impacts of warming and permafrost thaw on chemical weathering and riverine carbon fluxes on the Qinghai-Tibet Plateau*. EGU General Assembly. Vienna, Austria
- Bufo, A.**, Zhang, L., Dean, J.F., Rocher-Ros, G., Stanley, E.H., Sponseller, R.A., Butman, D.E., Karlsson, J., Liu, R., Battin T.J. (2025). *Impacts of warming and permafrost thaw on chemical weathering and riverine carbon fluxes on the Qinghai-Tibet Plateau*. GSA Special Conference. London, United Kingdom

2024

- Schultz, K., **Bufo, A.** (2024). *Weathering fluxes under moderate erosion rates – the case of the Black Forest, Germany*. Pangeo. Salzburg, Austria
- Bufo, A.**, Rugenstein, J.K.C., Hovius, N. (2024). *Non-linear sensitivity of mineral weathering to erosion implies an optimum of CO₂ drawdown at moderate erosion rates*. EGU General Assembly. Vienna, Austria
- Turowski, J.M., McNab, F., **Bufo, A.**, Tofelde, S. (2024). *Evolution of channel belts, flood plains and fluvial valleys*. EGU General Assembly. Vienna, Austria

Roda-Boluda, D.C., Schildgen, T.F., Lupker, M., **Bufo, A.**, Sondergaard, A.S., Haghypour, N., Prancevic, J., Tofelde, S., Wittmann, H., Hovius, N. (2024). *Quantifying landslide erosion rates over millennial timescales in the Southern Alps and Fiordland, New Zealand*. EGU General Assembly. Vienna, Austria

Chang, J-M., Wu, I-F., Lin, L-H., **Bufo, A.**, Wang, P-L., Chou, H-L., Hsieh, T-C. (2024). *Microbial Pyrite Oxidation and Chemical Weathering to a Typhoon Precipitation and Discharge Event in Taiwan*. EGU General Assembly. Vienna, Austria

2023

Bufo, A., Rugenstein, J.K.C., Hovius, N. (2023). *Non-linear sensitivity of mineral weathering to erosion implies an optimum of CO₂ drawdown at moderate erosion rates*. DGGV Annual Meeting. Berlin, Germany

Turowski, J.M., **Bufo, A.**, Tofelde, S. (2023). *A process-based model for fluvial valley width*. DGGV Annual Meeting. Berlin, Germany

Bufo, A., Rugenstein, J.K.C., Hovius, N. (2023). *Non-linear sensitivity of mineral weathering to erosion implies an optimum of CO₂ drawdown at moderate erosion rates*. Goldschmidt. Lyon, France

Erlanger, E., **Bufo, A.**, Paris, G., D'Angeli, I., Pisani, L., Kemeny, P., Stammeier, J., Haghypour, N., Hovius N. (2023). *Beyond uplift-weathering: metamorphic decarbonation dominates the carbon budget of the central Apennines*. Goldschmidt. Lyon, France

Hemingway, J.D., **Bufo, A.**, Hovius, N., Johnston, D.T. (2023). *Pyrite oxidation and sulfur (re)cycling in erosive landscapes as revealed by sulfate triple-oxygen isotopes*. Goldschmidt. Lyon, France

Turowski, J., **Bufo, A.**, Tofelde, S. (2023). *A process-based model for fluvial valley width*. EGU General Assembly. Vienna, Austria

Erlanger, E., **Bufo, A.**, Paris, G., D'Angeli, I., Pisani, L., Kemeny, P., Stammeier, J., Haghypour, N., Hovius N. (2023). *Building the inorganic carbon budget of a young, actively extending carbonate-rich mountain range: the interplay between chemical weathering and tectonics*. EGU General Assembly. Vienna, Austria

Roda-Boluda, D.C., Schildgen, T.F., Prancevic, J., Tofelde, S., **Bufo, A.**, Lupker, M., Wittmann, H., Hovius, N. (2023). *Comparing erosion rates across timescales and processes: insights from the Western Southern Alps of New Zealand*. EGU General Assembly. Vienna, Austria

2022

Bufo, A., Rugenstein, J.K.C., Hovius, N. (2022). *Non-linear dependence of silicate, carbonate and sulfide weathering on erosion and climate*. Mid-European Geomorphology Meeting. Kaprun, Austria

Erlanger, E., **Bufo, A.**, Paris, G., D'Angeli, I., Pisani, L., Stammeier, J., Haghypour, N., Hovius N. (2022). *Metamorphic CO₂ emissions outpace CO₂ drawdown from silicate weathering in a young carbonate mountain belt*. GSA Connects. Denver, Colorado, USA

Dosch, S., Hovius, N., Repasch, M.N., Vieth-Hillebrand, A., **Bufo, A.**, Sachse, D. (2021). *Carbon storage, transfer and outgassing driven by floodplain morphology and seasonality at the Rio Bermejo, Argentina*. Goldschmidt. Hawaii, USA

Bufo, A., Hovius, N., Caves Rugenstein, J.K. (2021). *Erosion and chemical weathering of siliceous rocks at the supply and kinetic limits*. Goldschmidt. Hawaii, USA

Roda-Boluda, D.C., Schildgen, T.F., Wittmann, H., Tofelde, S., **Bufo, A.**, Prancevic, J., Hovius, N. (2021). *Temperature-controlled erosion dominates in the Western Southern Alps of New Zealand*. EGU General Assembly. Virtual

Bufo, A., Hovius, N., Caves Rugenstein, J.K. (2021). *Erosion and chemical weathering of siliceous rocks at the supply and kinetic limits*. EGU General Assembly. Vienna, Austria

2021

- Bufo, A.**, Hovius, N., Caves Rugenstein, J.K. (2021). *Erosion and chemical weathering at the supply and kinetic limits*. Mid-European Geomorphology Meeting 2021. Munich, Germany
- Tofelde, S., **Bufo, A.**, Turowski, J.M. (2021). *Hillslope sediment supply limits alluvial valley width*. Mid-European Geomorphology Meeting 2021. Munich, Germany
- Bufo, A.**, Hovius, N., Emberson, R., Caves Rugenstein, J.K., Galy, A., Hassenruck-Gudipati, H., Chang, J-M. (2021). *Co-variation of silicate, carbonate, and sulfide weathering drives CO₂ release with erosion: Constraints from southern Taiwan*. GeoKarlsruhe 2021, DGGV Annual Meeting. Virtual
- Erlanger, E.D., Caves Rugenstein, J.K., **Bufo, A.**, Picotti, V., Willett, S.D. (2021). *Controls on Chemical Weathering and Physical Erosion in a Mixed Carbonate-Siliciclastic Orogen*. Goldschmidt. Virtual
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