

Joel S. Scheingross (he/him/his)

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Professional appointments

Assistant Professor, University of Nevada Reno, Dept. of Geological Sciences and Engineering, Jan. 2019 - Present
Postdoctoral Scientist, GFZ – German Research Centre for Geosciences, Potsdam, Germany, Nov. 2017 – Oct. 2018
Alexander von Humboldt Postdoctoral Fellow, GFZ – German Research Centre for Geosciences, Potsdam, Germany,
Nov. 2015 – Oct. 2017
Research / Teaching Assistant, California Institute of Technology, September 2009 – October 2015
Research staff, University of California, Berkeley, May 2008 – June 2009

Education

PhD, Geology, California Institute of Technology, Adviser: Michael Lamb, 2015
M.S., Geology, California Institute of Technology, 2012
B.A., Geology and B.S., Environmental Science, University of California, Berkeley, 2007

Honors and awards

AGU Luna B. Leopold Young Scientist Award (2019)
AGU Fall Meeting Robert P. Sharp Lecture invited speaker (2019)
Alexander von Humboldt Postdoctoral Fellow (2015 – 2017)
Outstanding Student Presentation Award, AGU Fall Meeting (2013)
National Science Foundation Graduate Research Fellowship Program fellow (2011-2014)
National Center for Airborne Laser Mapping (NCALM) seed grant recipient (2010)
UC Berkeley, Earth and Planetary Science Department Citation (2007)
Charles H. Ramsden Research Fellow, UC Berkeley (2007)
NSF Research Experience for Undergraduates fellow, Oregon State University (2006)

Peer-reviewed publications ([ORCID](#) | [Google Scholar](#)) (*indicates advised graduate, undergraduate, or high school student)

In Review and Revision

- *Groh, E.L. and **Scheingross, J.S.**, in revision, Morphologic signatures of autogenic waterfalls: A case study in the San Gabriel Mountains, California.
- *Golombek, N.Y., **Scheingross, J.S.**, Repasch, M.N., Hovius, N., Sachse, D., Lupker, M., Eglinton, T.I., Menges, J., Haghypour, N., Poulson, S.R., Grocke, D.R., Latosinski, F.G., Szupiany, R.N., in revision, Fluvial organic carbon composition regulated by seasonal variability in lowland river migration.

In Press and Print

18. Repasch, M., **Scheingross, J.S.**, Hovius, N., Lupker, M., Wittmann, H., Haghypour, N., Grocke, D.R., Orfeo, O., Eglinton, T.I., and D. Sachse, accepted, Fluvial organic carbon cycling regulated by sediment transit time, *Nature Geoscience*.
17. **Scheingross, J.S.** and M.P. Lamb, 2021, Mass balance controls on sediment scour and bedrock erosion in waterfall plunge pools, *Geology*, v. 49, doi: 10.1130/G48881.1.
16. **Scheingross, J.S.**, Repasch, M.N., Hovius, N., Sachse, D., Lupker, M., Fuchs, M., Halevy, I., Gröcke, D.R., *Golombek, N.Y., Haghypour, N., Eglinton, T.I., and O. Orfeo, 2021, Constrains on organic carbon modification and oxidation during transient floodplain storage, *Earth and Planetary Science Letters*, V. 561, doi: 10.1016/j.epsl.2021.116822.
15. **Scheingross, J.S.**, Limaye, A.B., McCoy, S.M., and A.C. Whittaker, 2020, The shaping of erosional landscapes by internal dynamics, V. 1, *Nature Reviews Earth & Environment*, doi: 10.1038/s43017-020-0096-0.
14. Repasch, M., Wittmann, H., **Scheingross, J.S.**, Hovius, N., Sachse, D., Szupiany, R., and O. Orfeo, 2020, Sediment transit time and floodplain storage dynamics in alluvial rivers revealed by meteoric ¹⁰Be, *JGR Earth Surface*, V. 125, doi: 10.1029/2019JF005419.

13. **Scheingross, J.S.**, Hovius, N., Dellinger, M., Hilton, R.G., Repasch, M., Sachse, D., Gröcke, D.R., Vieth-Hillebrand, A., and J.M. Turowski, 2019, Preservation of organic carbon during active fluvial transport and particle abrasion, *Geology*, V. 47, no. 10, p. 958-962, doi:10.1130/G46442.1.
12. **Scheingross, J.S.**, M.P. Lamb, and B. Fuller, 2019, Self-formed bedrock waterfalls, *Nature*, V. 567, doi: 10.1038/s41586-019-0991-z.
11. **Scheingross, J.S.**, and M.P. Lamb, 2017, A mechanistic model of waterfall plunge-pool erosion into bedrock, *JGR – Earth Surface*, doi: 10.1002/2017JF004195.
10. **Scheingross, J.S.**, *Lo, D.Y., and M.P. Lamb, 2017, Self-formed waterfall plunge pools in homogeneous rock, *Geophysical Research Letters*, V. 44:1, p. 200-208, doi: 10.1002/2016GL071730.
9. **Scheingross, J.S.** and M.P. Lamb, 2016, Sediment transport through self-adjusting, bedrock-walled waterfall plunge pools, *JGR-Earth Surface*, V. 121, p. 939-963, doi: 10.1002/2015JF003620.
8. Lamb, M.P., Finnegan, N.J., **Scheingross, J.S.**, and Sklar, L.S., 2015, New insight into the mechanics of fluvial bedrock erosion through flume experiments and theory, *Geomorphology*, V. 244, p. 33-55, doi: 10.1016/j.geomorph.2015.03.003.
7. **Scheingross, J.S.**, Brun, F., *Lo, D.Y., *Omerdin, K., and M.P. Lamb, 2014, Experimental evidence for fluvial bedrock incision by suspended and bed-load sediment, *Geology*, V. 42, no. 6, p. 523-526, doi:10.1130/G35432.1.
6. Mackey., B.H., **Scheingross, J.S.**, Lamb, M.P., and K.A. Farley, 2014, Knickpoint formation, rapid propagation, and landscape response following coastal cliff retreat at last-interglacial sea-level highstand: Kaua'i, Hawai'i, *GSA Bulletin*, V.126, no.7/8, p. 925-942, doi:10.1130/B30930.1.
5. DiBiase, R.A., Limaye, A.B., **Scheingross, J.S.**, Fischer, W.W. and Lamb, M.P., 2013, Deltaic deposits at Aeolis Dorsa: Sedimentary evidence for a standing body of water on the northern plains of Mars, *JGR - Planets*, V. 118, Issue 6, pg. 1285-1308, doi: 10.1002/jgre.20100.
4. **Scheingross, J.S.**, Winchell, E.W., Lamb, M.P., and W.E. Dietrich, 2013, Influence of bed patchiness, slope, grain hiding, and form drag on gravel mobilization in very steep streams, *JGR – Earth Surface*, V. 118, Issue 2, p. 982-1001, doi: 10.1002/jgrf.20067.
3. **Scheingross, J.S.**, Minchew, B.M., Mackey, B.H., Simons, M., Lamb, M.P., and S. Hensley, 2013, Fault-zone controls on the spatial distribution of slow-moving landslides, *GSA Bulletin*, V. 125, no. 3/4, p. 473–489; doi: 10.1130/B30719.1.
2. Lamb, M.P., **Scheingross, J.S.**, Swanson, E., Amidon, W., Limaye, A., 2011, A model for post-fire sediment flux by dry ravel in steep landscapes. *JGR - Earth Surface*, V. 116, Issue F3, doi: 10.1029/2010JG001878.
1. Hurst, T.P., Cooper, D.W., **Scheingross, J.S.**, Seale, E.M., Laurel, B.J., and M.L. Spencer. 2009. Effects of ontogeny, temperature, and light on vertical movements of larval Pacific cod (*Gadus macrocephalus*). *Fisheries Oceanography*, 18, 5, p. 301-311 doi:10.1111/j.1365-2419.2009.00512.x.

Other publications

- Scheingross, J.S.**, 2015, Mechanics of sediment transport and bedrock erosion in steep landscapes, Ph.D. dissertation, California Institute of Technology, Pasadena, California.
- Scheingross, J.S.**, 2007. Predicting species distribution of Sierra Nevada butterflies in response to climate change. Senior Thesis, University of California, Berkeley.

Teaching

- Sedimentology and stratigraphy (GEOL 202), every fall (since 2019)
- Fluvial sediment transport and bedrock erosion (GE 430/630), spring in odd years (since 2021)
- Earth science communication: theory and practice (GEOL 740), spring in even years (since 2020)
- Earth surface processes seminar and reading group, every semester (since 2019)

Advising

Current graduate students

- Mara Nutt, PhD Student, University of Nevada Reno, 2021 - present
- Michael Robinson, PhD Student, University of Nevada Reno, 2021 - present
- Sophie Rothman, PhD student, University of Nevada Reno (co-advised with Scott McCoy), 2019 – present

Former graduate students

- Erika Groh, MS 2021, University of Nevada Reno, Morphologic signatures of autogenic waterfalls: A case study in the San Gabriel Mountains, California.

Nina Golombek, MS 2019, University of Potsdam, Germany (co-advised with Niels Hovius), Seasonality of organic carbon export and stable isotopic signatures in an Andean lowland River.

Former undergraduate and high school students

Ramona Schneider, Winter 2018, Experimental investigation of silicate weathering during fluvial transport
Toni Schmidt, Spring 2017, Experimental investigation of organic carbon oxidation during river transport
Nina Golombek, 2016-2017, Oxidation of organic carbon in the Rio Bermejo, Argentina
Juliane Preimesberger, Summer 2014, Bedrock erosion experiments at steep slopes
Gheorghe Schreiber, Summer 2013, The role of mixed grain size distributions in fluvial bedrock incision
Khadijah Omerdin, 2012-2013, Bedrock erosion by suspended sediment
Daniel Lo, Summer 2012, Foam and waterfall erosion experiments
Conor O'Toole, Summers 2010 and 2011, Waterfall sediment transport and erosion experiments

Contributions to justice, equity, diversity and inclusion (JEDI)

UNR Geoscience Community Diversity, Equity, and Inclusion founder and Committee Chair (2020 – present)
UNR Geoscience Community Unlearning Racism in the Geoscience Pod Leader (2021)
UNR Graduate Program of Hydrologic Sciences Diversity, Equity, and Inclusion Committee founding member (2020 – present)

Accomplishments I lead or substantially contributed to, and current JEDI-related projects:

- Established of a UNR Geoscience Community Diversity, Equity, and Inclusion Committee
- Initiated a major overhaul of the UNR Geoscience department webpage to showcase our commitment to diversity, display demographic data, and create a transparent list of diversity-related goals and accomplishments
- Created a centralized repository for pre-existing outreach and volunteer opportunities available at UNR and in the greater Reno community
- Updated the UNR geology department graduate admissions page to explicitly include tips for building a successful application (including tips for contacting prospective advisers) that is traditionally part of the 'hidden curriculum' and may not be common knowledge for students of all backgrounds
- Co-drafted and edited a Code of Conduct to be distributed to all UNR Geoscience community members
- Organized invited departmental seminars from diverse speakers and encouraged all speakers to speak about issues related to diversity, equity, inclusion and justice (sometimes in a separate talk) if they wish
- Organized professional development and JEDI panel discussions for the AGU Earth and Planetary Surface Processes online seminar series (e.g., [The Intersection of Geomorphology and Environmental Justice](#) and [Building a Supporting Research Community](#))
- Organized and analyzed results for an annual climate survey to poll members of the UNR Geoscience community
- Currently working to develop and implement Individual Development Plans for all UNR Geoscience graduate students to complete and review with their advisers on an annual basis.
- Currently developing an ombudsperson system for the UNR Geoscience community to allow anonymous feedbacks and complains
- Currently working to revise the UNR Geology Department bylaws to recognize JEDI-related work in promotion and tenure evaluations, and to modify hiring practices to increase faculty diversity.
- Currently advising and assisting graduate students in the AGU Earth and Planetary Surfaces Processes section to develop and implement a climate survey focused on JEDI within the Earth and Planetary Surface Processes community.

Conference abstracts related to JEDI work:

Scheingross, J.S., Cao, W., DesOrmeau, J., Gardner, M., Gordon, S.M., De Masi, C., Sheevam, P. and Toller, J., 2021, Progress on JEDI initiatives within the University of Nevada Reno geosciences community, submitted to the American Geophysical Union Fall Meeting.

Service and outreach

AGU Earth and Planetary Surface Processes (EPSP) executive committee member (2017 – present)
AGU EPSP Student Committee Liaison (2019 – present)
AGU EPSP webmaster and social media co-coordinator (2015 – present)
AGU EPSP Connects (online seminar/professional development series) co-founder and organizer (2020 – 2021)
Volunteer for Nevada State Science Teachers Association Science NV CONNECTS program (2021)
Organizer, AGU EPSP "Ways & Means" mug fundraiser (\$1380 raised, 2018)

Organizer and co-founder of AGU EPSP “Early Career Geomorphologist Night” (2013-2014)

Session convener: Goldschmidt (2020), AGU (2014–2018, 2020), EGU (2016 - 2017)

Reviewer for *Earth Surface Dynamics*, *Earth Surface Processes and Landforms*, *Geology*, *Geophysical Research Letters*, *GSA Bulletin*, *JGR – Earth Surface*, *Science Advances*, Nevada NASA Space Grant, NOAA Sea Grant, US NSF, US-Israel Binational Science Foundation.

Organizer for Caltech Geoclub seminar series (academic year 2011/2012, summer 2014)

Member: American Geophysical Union, European Geosciences Union, Geochemical Society

Regular (6x/yr) guest lecturer, 6th Grade Earth Sciences, McKinley Middle School (2010- 2015)

Caltech *Science Saturday* public outreach lecture (2011)

Invited Lectures

2021: Humboldt State University, ETH Zürich

2020: Dalhousie University

2019: AGU Fall Meeting, Sacramento State University, University of Colorado Boulder

2018: Ben-Gurion University of the Negev, University Nevada Reno

2017: UC Berkeley, UC Riverside, UC Santa Barbara, Université Rennes, Universität Tübingen

2016: Dartmouth College, Imperial College London, University of Edinburgh, Université Grenoble Alpes

2015: Ben-Gurion University of the Negev, University of Potsdam

2014: GFZ German Research Center for Geosciences, University of Southern California

2013: NASA Jet Propulsion Laboratory