

## **Michael P. Lamb**

Geological and Planetary Sciences  
California Institute of Technology  
MC 170-25, 1200 E. California Blvd.  
Pasadena, CA 91125

mpl@caltech.edu  
<https://lamb.caltech.edu>

### **Appointments**

Professor of Geology, Geological and Planetary Science, California Institute of Technology, 2014 – present.

Assistant Professor, Geological and Planetary Sciences, California Institute of Technology, 2009 – 2014.

Postdoctoral Fellow, Geological Sciences, University of Texas, Austin, Advisor: David Mohrig, 2008 – 2009.

Scientist, St. Anthony Falls Laboratory, Minneapolis, Minnesota, Advisors: Gary Parker & Chris Paola, 2000 – 2001.

### **Major Research Interests**

Landscape dynamics and physical sedimentology on Earth and other planets through the mechanics of erosion, transport and deposition of sediment. Active research questions include: Will river deltas and coastal landscapes drown due to sea level rise? How will Arctic rivers respond to permafrost thawing? When and where did water flow across the surface of Mars?

### **Education**

Ph.D. Earth and Planetary Science, University of California, Berkeley, Advisor: William Dietrich, 2008. Dissertation: *Formation of Amphitheater-headed Canyons*.

M.S. Oceanography, University of Washington, Seattle, Advisor: Jeffrey Parsons, 2003. Thesis: *High-density suspensions formed under waves*.

B.S. Geophysics *high distinction* & B.S. Geology *magna cum laude*, University of Minnesota, Minneapolis, 2001.

### **Honors and Awards**

Keynote Lecture, Gilbert Club Meeting, Berkeley, 2019

NASA Group Achievement Award, MSL Curiosity Mission Science, 2017

James B. Macelwane Medal, American Geophysical Union, 2017

Fellow, American Geophysical Union, 2017

Keynote Lecturer, Steepest Descent Meeting, Vienna, 2017

Royal Academy of Engineering Distinguished Visitor, Imperial College - London, 2015

NASA Group Achievement Award, MSL Curiosity Mission Science, 2015

Editor's Citation for Refereeing for *Reviews of Geophysics*, 2014

Editor's Citation for Refereeing for *Geophysical Research Letters*, 2013

Luna B. Leopold Young Scientist Award, American Geophysical Union, 2012

Robert P. Sharp Capstone Lecture, American Geophysical Union, 2012

Editor's Citation for Excellence in Refereeing for *JGR-Earth Surface*, 2009

### **Selected Leadership Experience**

Director of Caltech's Earth Surface Dynamics Laboratory, 2009-present.

Geology Option Representative, California Institute of Technology, 2014-2021.

Geology Representative on Division Strategic Planning Committees (2010, 2016, 2023), Faculty Search Committees in GPS, MCE and JPL (2010, 2013-2014, 2017-2018, 2022-2024 (chair)), Division Chair Search (2019, chair), Caltech Undergraduate Admissions Committee (2014-2018, 2025-2026), Academic Policies Committee (2024-2026).

Large collaborative projects: PI Alaska permafrost rivers and floodplains (NSF-NNA; Resnick Sustainability Institute; 2022-2027); Co-PI Mississippi delta land building (NASA EVS3 Delta-X; 2019–2024); Co-PI Avulsions on the Yellow River, China (NSF Coastal SEES, 2014-2017)

NASA Mission Team Member: SWOT (2024 – present); Mars rovers *Perseverance* (2022 – present), *Curiosity* (2014 – present), *Opportunity* (2016 – 2019).

Principle Investigator for federal (>\$8M) and private (>\$4M) sponsored research.

### **Selected Service and Outreach**

Caltech’s Watson Series public lecture: “The Science of Postfire Debris Flows,” January, 2025.

Developed, in coordination with Prof. Madeline Foster-Martinez, a recruitment and training program to bring undergraduate students from the University of New Orleans, who are directly affected by land loss in the Mississippi Delta region, to participate in related summer research at Caltech, 2022 - present.

Developed k-12 outreach program in coordination with the Yukon River Inter-Tribal Watershed Council at rural Alaskan schools on riverbank erosion, 2022 – present.

Founder and steering committee for SoCal Geomorph Symposium (2018 – present).

Appeared on local, national and international new events on wildfires, debris flows, floods and other natural hazards of public concerns (e.g., CBS, NBC, Weather Channel, LA Times, NY Times).

Caltech’s Watson public lecture: “When Rocks Roll: How Sediment Transport Shapes Planetary Surfaces,” March, 2014.

Developed and led workshop on sediment transport in steep rivers for the annual meeting of the National Association of Geoscience Teachers, 2011.

Designed the geologic infographic at Box Canyon State Park, Idaho, 2010.

Founder and moderator of “GeomorphLectures” Wiki that facilitates transfer of educational materials in geomorphology, 2010 – 2020.

Co-convener: *Earth and Planetary Surfaces General Poster Session*, AGU 2009 – 2016

Reviewer for many international scholarly journal and funding agencies.

Member: American Geophysical Union, European Geophysical Union, Geological Society of America.

### **Courses Taught**

Ge13: Mentor for *Scientific Writing Tutorial*, Spring 2010, Spring 2011, Winter 2016.

Ge40: *Special Problems for Undergraduates*, Spring 2010, Fall 2010, Spring 2011, Winter 2014, Spring 2014.

Ge125: *Geomorphology*, Fall 2010, Fall 2012, Fall 2014, Fall 2016, Fall 2018, Fall 2020, Fall 2022, Fall 2024.

Ge126: *Topics in Geomorphology*:

Winter 2010: *Geomorphology and Wildfire*

Winter 2011: *Sediment Transport Physics*

Winter 2012: *Alluvial Fans and Pediments*

Winter 2014: *Organic Carbon and Landscapes* (with J. West and W. Fischer)

Winter 2015: *Erosion of Rock by Wind*  
Winter 2016: *Soil Production in Steep Landscapes*  
Winter 2017: *Morphodynamics with Gary Parker*  
Winter 2018: *Rivers in Permafrost*  
Winter 2020: *Sediment Transport Mechanics*  
Winter 2021: *Floodplains and mud transport and deposition*  
Winter 2022: *Biotic influence on soil production and transport (with Todd Ehlers)*  
Winter 2023: *Riverbank erosion*  
Winter 2024: *Mud Club*  
Winter 2025: *Washload* with Jeremy Venditti  
Ce/Ge/Ge222 (also Ge192): *Earthquake Source Processes, Debris Flows, and Soil Liquefaction* (with Ampuero, Andrade and Lapusta), Spring 2012, Spring 2013.  
Ge193: *Subglacial hydrology and erosion* (with V. Tsai), Winter 2013  
Ge121: *Advanced Field Mapping*:  
Spring 2012: *Death Valley and Carrizo Plain*  
Fall 2013: *The Channeled Scablands of eastern Washington*  
Fall 2015: *Inverted Channels of Southern Utah*  
Fall 2017: *Rivers without vegetation in Death Valley*  
Fall 2019: *Island accretion on Wax Lake Delta, Louisiana*  
Fall 2021: *Soil production in Carrizo Plain*  
Fall 2023: *River Meanders without Plants in Quinn River, NV.*  
Winter 2026: *Avalanche deposits in Death Valley (with J. Grotzinger).*

## **Student and Postdoctoral Research Advised**

**High school students:** Schreiber (2013), Jay Yalamanchili (2015), Grace Knuth (2021-2022).

**Undergraduate and visiting graduate students:** Peter Buhler (2009 - 2010), Eric Kleinsasser (2010), Mariya Levina (2010), Cindy Tran (2010 –2011), Will Steinhardt (2011), Odin Marc (2010 - 2011), Mathieu Lapôtre (2010-2011), Connor O’Toole (2011), Cailan Halliday (2011), Aaron Tran (2012), Daniel Lo (2012), Fanny Brun (2013), Michael Jensen (2013), Hima Hassenruck-Gudipati (2013-2014), Julianne Preimesberger (2014), Elliot Simon (2014), Sam Holo (2015), Kirby Sikes (2015-2016), Brian Zdeb (2016), Jose Silvestre (2017), Sarah Steele (2017-2019), Lydia Kivrak (2017), Erich Herzig (2016-2018), Omar Wani (2018), Zewei Ma (2018), Janette Levin (2019-2020), Jade Fischer (2019-2020), Victor Heme (2019), Denice Garcia (2019), Zhongheng Sun (2019-2020), Sarah Feil (2020), Patrick Donohoe (2021), Maria Schmeer (2021), Kenny Thai (2021, 2022), Sarah Preston (2022), Vincent Soldano (2022), Isaac Smith (2022), Mavis Stone (2022), Kyd Williams (2023), Asiah Giuttoni (2023), Andy Liu (2023), Ayush Bhattacharya (2023), Olivia Xu (2023), Emiliano Gonzales (2023), Raisha Abubo (2024), Jonathan Zhao (2024), Alison Norton (2024), Emily Yu (2024-2025), Kaliyah Watson (2024-2025), Brayden Noh (2022 – 2025), Natalie Homyk (2025).

**PhD students as secondary advisor:** Kirsten Siebach (2011-2012), Robert Wills (2013 – 2016), Abbey Nastan (2013-2014), Yanzhe Zhu (2016-2017), Oak Kanine (2020-2025), Samantha Baker (2021-), Hussain Alqattan (2021-), Jocelyn Reahl (2023-2024), Nick Anderson (2024-2025), Josh Anadu (2024-)

### **PhD students as primary advisor:**

Ajay Limaye (2009–2014; now Associate Professor U. Virginia)  
Joel Scheingross (2009–2015; now Associate Professor U. Nevada-Reno)

Jeff Prancevic (2010–2016; now Geology Manager, Brimstone)  
Mathieu Lapôtre (2012–2017; now Assistant Professor Stanford)  
Austin Chadwick (2014–2019; now Assistant Professor Columbia)  
Alistair Hayden (2014–2020; now Assistant Professor, Cornell)  
Madison Douglas (2017–2023; now Assistant Professor, U.C. Berkeley)  
Justin Nghiem (2019–2025; now postdoctoral scholar, U. Minnesota).  
Emily Geyman (2021- present)  
Maria Schmeer (2022 – present)  
Ben Reynolds (2025 – present)

**Postdoctoral scholars:**

Ryan Ewing (2010–2011; now Professor, Texas AM)  
Ben Mackey (2010–2011; now Natural Hazards Analyst, Otago Regional Council, NZ)  
Pailin Chatanantavet (2010–2013; now Engineer, Ocean and Human, Tokyo, Japan)  
Adam Booth (2012-2013; now Associate Professor, Portland State)  
Roman DiBiase (2011–2014; now Associate Professor Penn State)  
Dirk Scherler (2013–2014; J.-P. Avouac main advisor; now Professor at GFZ-Potsdam)  
Vamsi Ganti (2012–2014; now Associate Professor U.C. Santa Barbara)  
Isaac Larsen (2013–2015; now Associate Professor, U. Massachusetts-Amherst)  
Florent Gimbert (2013–2015; V. Tsai main advisor; now Scientist, CNRS, France)  
Marisa Palucis (2014–2017; now Assistant Professor, Dartmouth)  
Mark Torres (2015–2017; W. Fischer co-advisor; now Assistant Professor, Rice U.)  
Lizzy Trower (2015–2017; W. Fischer co-advisor; now Assistant Professor, U.C. Boulder)  
Ke Liu (2017–2018; Marc Simard (JPL) main advisor; now on Wall Street)  
Jan de Leeuw (2017–2019; now Engineering Consultant in Bavaria)  
Tien-Hao Liao (2017–2021; Marc Simard (JPL) main advisor; now Assistant Professor National Taipei University of Technology)  
Alex Beer (2017–2019; Now postdoctoral scholar at Tuebingen University)  
Flavien Beaud (2017–2019; Now postdoctoral scholar at U. British Columbia)  
Gen Li (2018–2021; Fischer & Avouac co-advised; now Assist. Prof., U.C. Santa Barbara)  
Tamara Pico (2019–2021; now Assistant Professor, U.C. Santa Cruz)  
Lisanne Braat (2020–2021; now Scientist, European Space Agency)  
Omar Wani (2022-2023; now Assistant Professor, NYU).  
Gerard Salter (2019–2022; now Mendenhall Scholar, USGS)  
Ben Cardenas (2019–2022; now Assistant Professor, Penn State)  
Kieran Dunne (2021–2023; now Assistant Professor, TU Delft)  
Abdallah Zaki (2022–2024; now Postdoctoral Scholar, UT Austin)  
Dongchen Wang (2022–present)  
Yutian Ke (2022–present)  
Harrison Martin (2023–present)  
Tingan Li (2024–present)

**Scientific staff:**

Brian Fuller (2010–2017; now engineering geologist, California Water Board).  
Francois Ayoub (2014–2015; now scientists at NASA Jet Propulsion Laboratory).  
Tom Ulizio (2017–2020; now at Maryland Geological Survey).  
Kim Miller (2021–present).

## Invited Seminars

- 2026: National Academies Symposium on Geotechnical Hazards
- 2025: Caltech Watson Lecture, Rotary Club of Pasadena, Le Val Lund Lecture ASCE, Sikand Symposium Cal-State LA, Caltech GALCIT
- 2024: Texas Tech University
- 2023: University of Minnesota St. Anthony Falls Laboratory, MIT Earth and Planetary Sciences
- 2020: Duke University
- 2019: Institut de Physique du Globe de Paris (IPGP), France; Universidad Complutense, Madrid, Spain, University of Minnesota; Gilbert Club, Berkeley, CA.
- 2018: GeoMod Conference, Barcelona, Spain; UNED Madrid, Spain; GeoForschungsZentrum (GFZ), Potsdam, Germany.
- 2017: American Geophysical Union Fall Meeting, New Generation of Scientists session; European Geophysical Union, Planetary Geomorphology; Keynote Lecturer Steepest Descent Symposium, Vienna, Austria; University of Basel, Switzerland.
- 2016: University of California - Santa Barbara; University of Oregon; Jet Propulsion Laboratory, Director's conference; University of California – Santa Cruz.
- 2015: Brown University; Binghamton Symposium on experimental geomorphology; Imperial College, London.
- 2014: Rice University, University of California-Los Angeles, Caltech-GPS Division Seminar, Brown University, Earnest C. Watson public lecture at Caltech, Texas A&M; Stanford University.
- 2013: University of British Columbia, Geography; Simon Fraser University, Geography; Harvard University, EPS; Caltech, Board of Trustees; University of California – Los Angeles; ETH, Zurich, Switzerland; WSL, Zurich, Switzerland; IRSTEA, Grenoble, France; NASA Jet Propulsion Laboratory; Geological Society of America Annual Meeting; American Geophysical Union Annual Meeting; Stratodynamics Workshop, Nagasaki, Japan.
- 2012: Caltech, The Associates; University of Colorado, Boulder; University of Southern California, Earth Science; University of California, Santa Cruz, Earth Science; American Geophysical Union; Robert P. Sharp Capstone Lecture, AGU.
- 2011: University of California, Riverside, Earth Sciences; University of Illinois, Champaign, Geology; University of Wyoming, Geology and Geophysics; Titan Surface Processes Workshop, Pasadena.
- 2010: American Geophysical Union; California Institute of Technology, Board of Trustees, Keck Institute for Space Sciences & GPS Geoclub seminar; University of Washington, Seattle, School of Oceanography; Chevron Corporation; University of Pittsburg, Civil and Environmental Engineering.
- 2009: University of California, Santa Barbara, Earth Science; California Institute of Technology, Environmental Science and Engineering & GPS Division seminar; University of Arizona, Tucson, Geosciences; University of California, Berkeley, Civil and Environmental Engineering; University of Texas, Austin, School of Geosciences.
- 2008: University of Texas, Austin, RioMar Workshop & School of Geosciences; U.S. Geological Survey, Menlo Park; University of California, Berkeley, Earth and Planetary Science.
- 2007: Rice University, Earth Science; California Institute of Technology, Geological and Planetary Sciences; Massachusetts Institute of Technology, Earth and Planetary Sciences; University of Wisconsin, Madison, Geology and Geophysics.

## Refereed Publications

Please see <https://lamb.caltech.edu/publications> for an up-to-date publication list and PDF downloads for in-review and published articles.

Google Scholar citation h-index = 67; i10-index = 168; Citations = 13059.

\* denotes a graduate student, post-doctoral scholar or Lamb group staff author

\*\*denotes a Caltech undergraduate student or high school student intern author

205. \*Kanine, O., Cardenas, B.T., Beer, A.R., Golombek, M., Lamb, M.P., 2026, Bedrock chute formation by dry rockfall in Endeavor Crater, Mars. *Journal of Geophysical Research: Planets*.
204. Myrow, P.M., Hu, Mingxi, Lamb, M.P.; Paleohydraulics of cyclonic storm deposits suggest that the equatorial climate of Earth in the Pennsylvanian was not cold. *Geology* 2026; doi: <https://doi.org/10.1130/G53927.1>.
203. \*Nghiem, J. A., Li, G. K., Zepeda-Rosales, M., Li, Y., & Lamb, M. P. (2026). Flocculated silt, not clay, dominates river suspended sediment load. *Geophysical Research Letters*, 53, e2025GL118655. <https://doi.org/10.1029/2025GL118655> .
202. Simard, M., Jones, C. E., Twilley, R. R., Castañeda-Moya, E., Fagherazzi, S., Fichot, C. G., Lamb, M. P., Passalacqua, P., Pavelsky, T. M., Thompson, D. R., Belhadj-aissa, S., Biswas, P., Christensen, A., Cortese, L., Denbina, M., Donatelli, C., Flores, S., Fontenot, A., Harringmeyer, J. P., ... Zheng, Y. (2026). Delta-X: An airborne remote sensing framework to calibrate hydrodynamic and ecogeomorphic processes responsible for land building in coastal deltas. *Remote Sensing of Environment*, 334, 115201. <https://doi.org/10.1016/j.rse.2025.115201>
201. \*Geyman, E.C., Lamb, M.P. Resolving the changing pace of Arctic rivers. *Nat. Clim. Chang.* (2025). <https://doi.org/10.1038/s41558-025-02512-w>.
200. Kwon, S., Passalacqua, P., Nghiem, J. A., & Lamb, M. P. (2025). Mixing patterns of river deltas obtained from remotely sensed rouse number. *Journal of Geophysical Research: Earth Surface*, 130, e2024JF008077. <https://doi.org/10.1029/2024JF008077>
199. Libby R.W. Ives, Kathryn M. Stack, Emily C. Geyman, Sanjeev Gupta, Gwénaél Caravaca, Kirsten L. Siebach, Samantha Gwizd, John P. Grotzinger, Michael P. Lamb, Nicolas Mangold, Oak Kanine, Robert Barnes, Patrick Russell, Jorge I. Núñez, Justin I. Simon, Benjamin P. Weiss, Aileen Yingst, Sunanda Sharma, Stéphane Le Mouélic, Joshua Huggett, Alyssa Pascuzzo, Brittan Wogsland, Woodward W. Fischer, Nicolas Randazzo; Sedimentology and stratigraphy of the fluvial–deltaic Skrinkle Haven member, Tenby formation, Jezero Crater, Mars. *Journal of Sedimentary Research* 2025;; 95 (6): 1080–1113. doi: <https://doi.org/10.2110/jsr.2025.019>
198. \*Geyman, E.C., Paige, D.A. & Lamb, M.P. (2025) The contribution of rock strength to soil production. *Nature* <https://doi.org/10.1038/s41586-025-09751-z>
197. Myrow, P.M., Gaines, R.R., Lamb, M.P., in press, Low sinuosity meandering rivers before vascular plants: Cambri Tapeats Formation, Arizona, USA. *Geological Society of America Bulletin*,
196. \*Nghiem, J. A., \*Li, G. K., Harringmeyer, J. P., Salter, G., Fichot, C. G., Wright, K., Passalacqua, P., Lamb, M.P. (2025). Evidence for mud as flocculated bed-

- material load versus washload in a river delta. *Journal of Geophysical Research: Earth Surface*, 130, e2025JF008366. <https://doi.org/10.1029/2025JF008366>
195. GK Li, AJ West, Z Jin, H Qiu, F Zhang, J Wang, DE Hammond, Alexander Densmore, RG Hilton, S Dong, A Atwood, WW Fischer, MP Lamb, Large riverbed sediment flux sustained for a decade after an earthquake. *Nature* 644, 398–403 (2025). <https://doi.org/10.1038/s41586-025-09354-8>
194. \*Harrison K. Martin, Michael P. Lamb; The unexpected global distribution of Earth's sediment sources and sinks. *Geology* 2025; doi: <https://doi.org/10.1130/G53289.1>
193. \*Zaki, A. S., \*Wang, D., \*Baker, S. R., Grotzinger, J. P., Dickson, J., & Lamb, M. P. (2025). Mars' hourglass landforms as local source-to-sink fluvial systems. *Journal of Geophysical Research: Planets*, 130, e2024JE008745. <https://doi.org/10.1029/2024JE008745>
192. \*Geyman, E.C., \*Ke, Y., \*Magyar, J.S., \*Reahl, J.N., \*Soldano, V., Brown, N.D., West, A.J., Fischer, W.W., and Lamb, M.P (2025) Scaling laws for sediment storage and turnover in river floodplains. *Sci. Adv.* 11, eadu8574(2025). DOI: 10.1126/sciadv.adu8574
191. Mondro, C. A., Grotzinger, J., Fedo, C. M., Lamb, M. P., Gupta, S., Dietrich, W. E., et al. (2025). Depositional environment of the amapari marker band: Rising water levels formed kilometer-scale lake in gale crater, Mars. *Journal of Geophysical Research: Planets*, 130, e2024JE008606. <https://doi.org/10.1029/2024JE008606>
190. \*Cardenas, B.T., Beer, A.R., \*\*Donohoe, P.J., \*Kanine, O., \*Dickson, J.L., Lamb, M.P., in review, Crater-wall degradation and bedrock-chute formation from dry rockfall erosion.
189. Bryk, A. B., W. E. Dietrich, K. A. Bennett, V. K. Fox, C. M. Fedo, M. P. Lamb, E. S. Kite, et al. "Pediment Formation and Subsequent Erosion in Gale Crater: Clues to the Climate History of Mars." *Icarus* 430 (April 1, 2025): 116445. <https://doi.org/10.1016/j.icarus.2024.116445>.
188. Mondro, Claire A., Christopher M. Fedo, John P. Grotzinger, Michael P. Lamb, Sanjeev Gupta, William E. Dietrich, Steven Banham, et al. "Wave Ripples Formed in Ancient, Ice-Free Lakes in Gale Crater, Mars." *Science Advances* 11, no. 3 (January 15, 2025): eadr0010. <https://doi.org/10.1126/sciadv.adr0010>.
187. Chen, Jian-Jih, Gen K. Li, Marcus Lin, \*Justin A. Nghiem, Ziyue Yu, Tianshu Kong, Heather A. Donnelly, et al., 2024, "Isotopic Evidence for Preferential Transport of Fertilizer Nitrogen into the Northern Gulf of Mexico during High Water Discharge." *Communications Earth & Environment* 5, no. 1: 1–9. <https://doi.org/10.1038/s43247-024-01873-y>.
186. An, C., Parker, G., Venditti, J.G., Lamb, M.P., Hassan, M.A., H Miwa, Fu, X., 2024, Autogenic formation of bimodal grain size distributions in rivers and its contribution to gravel-sand transitions, *Geophysical Research Letters* 51 (17), e2024GL109109
185. \*Geyman, E.C., Douglas, M.M., Avouac, JP., Lamb, M.P., Permafrost slows Arctic riverbank erosion. *Nature* 634, 359–365 (2024). <https://doi.org/10.1038/s41586-024-07978-w>
184. \*Nghiem, J. A., Li, G. K., Harringmeyer, J. P., Salter, G., Fichot, C. G., Cortese, L., and Lamb, M. P., 2024, Testing floc settling velocity models in rivers and freshwater wetlands, *Earth Surf. Dynam.*, 12, 1267–1294, <https://doi.org/10.5194/esurf-12-1267-2024>, 2024.
183. \*Douglas, M.M., \*Li, G.K., West, A.J., \*Ke, Y., Rowland, J.C., Brown, N., Schwenk, J., Kemeny, P., Piliouras, A., Fischer, W.W., Lamb, M.P., Permafrost formation in a meandering river floodplain, *AGU Advances* 5 (4), e2024AV001175.

182. \*Douglas, M.M., \*Miller, K.L., Lamb, M.P., 2024, Mud cohesion governs unvegetated meander migration rates and deposit architecture, *Geological Society of America Bulletin*.
181. Smith, M.I., \*Ke, Y., \*Geyman, E.C., \*Reahl, J.N., \*Douglas, M.M., Seelen, E.A., Magyar, J.S., \*Dunne, K.B.J., Mutter, E., Fischer, W.W., Lamb, M.P., West, A.J., 2024, Mercury Stocks in Discontinuous Permafrost and Their Mobilization by River Migration in the Yukon River Basin. *Environmental Research Letters*, June. <https://doi.org/10.1088/1748-9326/ad536e>.
180. \*\*Noh, B., \*Wani, O., \*Dunne, K., Lamb, M.P., 2024, Geomorphic risk maps for river migration using probabilistic modeling - a framework. *EGU sphere* <https://doi.org/10.5194/egusphere-2023-2190>.
179. Lehnigk, K.E., Larsen, I.J., Lamb, M.P., David, S.R., 2024, Rates of bedrock canyon incision by megafloods, Channeled Scabland, eastern Washington, USA. *Geological Society of America Bulletin*, 136 (9-10), 4398-4410.
178. \*Kalucha, H., \*Douglas, M.M., Lamb, M.P., \*Ke, Y., Fischer, W.W., 2024, Low but persistent organic carbon content of hyper-arid river deposits and implications for ancient Mars. *Journal of Geophysical Research: Planets*. 129 (5), e2023JE008182.
177. \*Douglas, M.M. and Lamb, M.P., 2024, A model for thaw and erosion of permafrost riverbanks. *Journal of Geophysical Research: Earth Surface*, 129(4), e2023JF007452.
176. \*Beer, A.R., \*Fischer, J.N., \*Ulizio, T.P., \*Ma, Z., \*Sun, Z., Lamb, M.P., 2024, A mechanistic model and experiments on bedrock incision and channelization by rockfall. *Journal of Geophysical Research: Earth Surface* 129 (3), e2023JF007504
175. \*Braat, L., Bückner, M., Sefton-Nash, E., Lamb, M.P., 2024, Gravity-driven differences in fluvial sediment transport fluxes on Mars and Earth. *Journal of Geophysical Research: Planets* 129 (2), e2023JE007788
174. Stack, K. M., Ives, L., Gupta, S., Lamb, M.P., Tebolt, M., et al., in press, Sedimentology and Stratigraphy of the Shenandoah Formation, Western Fan, Jezero Crater, Mars. *Journal of Geophysical Research: Planets*. 129 (2), e2023JE008187.
173. Parker, G., An, C., Lamb, M.P., Garcia, M.H., Dingle, E.H., Venditti, J.G., 2024, Dimensionless argument: a narrow grain size range near 2 mm plays a special role in river sediment transport and morphodynamics, *EGU sphere*, 1-19.
172. Kemeny, P. C., \*Li, G. K., \*Douglas, M., Berelson, W., \*Chadwick, A. J., Dalleska, N. F., Lamb, M. P., Larsen, W., Magyar, J. S., Rollins, N.E., Rowland, J., Smith, I., Torres, M. A., Webb, S. M., Fischer, W. W., & West, A. J., 2023, Evaluating the Sulfur-Carbon-Climate Permafrost Weathering Feedback in the Koyukuk River Catchment, AK.
171. \*Douglas, M.M., \*Miller, K.L., \*Schmeer, M., Lamb, M.P., 2023, Ablation-limited erosion rates of permafrost river banks, *Journal of Geophysical Research: Earth Surface*, e2023JF007098.
170. Valenza, J., V. Ganti, A. C. Whittaker, and M. P. Lamb. 2023, Pre-vegetation, single-threaded rivers sustained by cohesive, fine-grained bank sediments: Mesoproterozoic Stoer Group, NW Scotland, *Geophysical Research Letters*, 50 (14), e2023GL104379.
169. \*Douglas, M.M., \*Dunne, K.B.J. Lamb, M.P., 2023, Sediment entrainment and slump blocks limit permafrost riverbank erosion, *Geophysical Research Letters*, 50 (11), e2023GL102974.

168. Li, T., Venditti, J., Skar, L., Lamb, M.P., 2023, Lateral erosion of bedrock channel banks by bedload and suspended load. *Journal of Geophysical Research: Earth Surface*, 128 (3), e2022JF006806.
167. Rowland, Joel C, Jonathan P Schwenk, Eitan Shelef, Jordan Muss, Daniel Ahrens, Sophie Stauffer, Anastasia Pilliouras, Benjamin Crosby, Austin Chadwick, Madison M Douglas, Preston C Kemeny, Michael P Lamb, Gen K Li, Lawrence Vulis, 2023, Scale-dependent influence of permafrost on riverbank erosion rates. *Journal of Geophysical Research: Earth Surface*. e2023JF007101.
166. Donatelli, C., Passalacqua, P., Wright, K., Salter, G., Jensen, D., Lamb, M., Fagherazzi, S., 2023, Quantifying flow velocities in river deltas via remotely sensed suspended sediment concentration. *Geophysical Research Letters*.
165. \*Cardenas, B. T., Lamb, M. P., Jobe, Z. R., Mohrig, D., & Swartz, J. M., 2023, Morphodynamic Preservation of Fluvial Channel Belts. *The Sedimentary Record*, 21(1).
164. Wright, K., Hariharan, J., Passalacqua, P., Salter, G., Lamb, M.P., 2022, From Grains to Plastics: Modeling Nourishment Patterns and Hydraulic Sorting of Fluvially Transported Materials in Deltas. *Journal of Geophysical Research-Earth Surface*, 127, e2022JF006769. <https://doi.org/10.1029/2022JF006769>.
163. \*Cardenas, B.T. and Lamb, M.P., 2022, Paleogeographic reconstructions of an ocean margin on Mars based on deltaic sedimentology at Aeolis Dorsa. *Journal of Geophysical Research: Planets*, 127, e2022JE007390. <https://doi.org/10.1029/2022JE007390>.
162. \*Cardenas, B.T., Grotzinger, J.P., Lamb, M.P., Lewis, K., Fedo, C., Bryk, A., Dietrich, W., Stein, N., Turner, M., and Caravaca, G., 2022, Barform deposits of the Carolyn Shoemaker formation, Gale crater, Mars. *Journal of Sedimentary Research*, v. 92, 1071–1092, DOI: 10.2110/jsr.2022.032.
161. \*Cardenas, B.T., Lamb, M.P., and Grotzinger, J.P., in press, Martian landscapes of fluvial ridges carved from ancient sedimentary basin fill. *Nature Geoscience*, v. 15, 871 - 877, <https://doi.org/10.1038/s41561-022-01058-2>.
160. \*Salter, G., Lamb, M.P., 2022, Autocyclic secondary channels stabilize deltaic islands undergoing relative sea level rise, *Geophysical Research Letters*, 49, e2022GL098885. <https://doi.org/10.1029/2022GL098885>.
159. \*Salter, G., Passalacqua, P., Wright, K., Feil, S., Jensen, D., Simard, M., Lamb, M.P., 2022, Spatial patterns of deltaic deposition revealed by streaklines extracted from remotely-sensed suspended sediment concentration, *Geophysical Research Letters*, 49, e2022GL098443. <https://doi.org/10.1029/2022GL098443>.
158. \*Chadwick, A.J., \*Steele, S., \*Silvestre, J., Lamb, M.P., 2022, Effect of sea-level change on river avulsions and stratigraphy for an experimental lowland delta, *Journal of Geophysical Research - Earth Surface*, 127, e2021JF006422. <https://doi.org/10.1029/2021JF006422>.
157. \*Chadwick, A.J., \*Steele, S., \*Silvestre, J., Lamb, M.P., 2022, More extensive land loss expected on coastal deltas due to rivers jumping course during sea-level rise, *Proceedings of the National Academy of Science*, 119 (31) e2119333119 <https://doi.org/10.1073/pnas.2119333119>
156. David, S. R., Larsen, I. J., & Lamb, M. P., 2022, Narrower paleo-canyons downsize megafloods. *Geophysical Research Letters*, 49, e2022GL097861. <https://doi.org/10.1029/2022GL097861>.
155. Watkins, Jessica A., John P. Grotzinger, Nathan T. Stein, Steven G. Banham, Sanjeev Gupta, David M. Rubin, Kathryn Stack Morgan, Kenneth S. Edgett, Jens Frydenvang, Kirsten L. Siebach, Michael P. Lamb, Dawn Y. Sumner, Kevin W.

- Lewis, 2022, Burial and exhumation of sedimentary rocks revealed by the base Stimson erosional unconformity, Gale crater, Mars, 2022, *Journal of Geophysical Research: Planets*, 127, e2022JE007293. <https://doi.org/10.1029/2022JE007293>.
154. Stack, K. M., Dietrich, W. E., Lamb, M. P., Sullivan, R. J., Christian, J. R., Newman, C. E., et al., 2022, Orbital and in-situ investigation of periodic bedrock ridges in Glen Torridon, Gale Crater, Mars. *Journal of Geophysical Research: Planets*, 127, e2021JE007096. <https://doi.org/10.1029/2021JE007096>.
153. Rubin, D. M., Lapôtre, M. A. G., Stevens, A. W., Lamb, M. P., Fedo, C. M., Grotzinger, J. P., et al., 2022, Ancient winds, waves, and atmosphere in Gale crater, Mars, inferred from sedimentary structures and wave modeling. *Journal of Geophysical Research: Planets*, 127, e2021JE007162. <https://doi.org/10.1029/2021JE007162>.
152. Brooke, S., \*Chadwick, A.J., \*Silvestre, J., Lamb, M.P., Edmonds, D, Ganti, V., 2022, Where rivers jump course, *Science*, Vol 376, Issue 6596, pp. 987-990, DOI: 10.1126/science.abm1215.
151. \*Nghiem, J. A., Fischer, W. W., \*Li, G. K., & Lamb, M. P., 2022, A mechanistic model for mud flocculation in freshwater rivers. *Journal of Geophysical Research: Earth Surface*, 127, e2021JF006392. <https://doi.org/10.1029/2021JF006392>.
150. \*Douglas, M. M., \*Li, G. K., Fischer, W. W., Rowland, J. C., \*Kemeny, P. C., West, A. J., Schwenk, J., Piliouras, A. P., \*Chadwick, A. J., and Lamb, M. P., 2022, Organic carbon burial by river meandering partially offsets bank erosion carbon fluxes in a discontinuous permafrost floodplain, *Earth Surf. Dynam.*, 10, 421–435, <https://doi.org/10.5194/esurf-10-421-2022>.
149. Ma, H., Nittrouer, J.A., Fu, X., Parker, G., Zhang, Y., Wang, Y., Wang, Y., Lamb, M.P., Best, J.L., Parsons, D.R., Wu, B., Cisneros, J., 2022, Amplification of downstream flood stage due to damming of fine-grained rivers, *Nat Commun* 13, 3054 (2022). <https://doi.org/10.1038/s41467-022-30730-9>.
148. \*Pico, T., David, S.R., Larsen, I.J., Mix, A., Lehnigk, K., Lamb, M.P., 2022, Glacial isostatic adjustment directed incision of the Channeled Scabland by ice-age megafloods. *Proceedings of the National Academy of Science*, 119(8), <https://doi.org/10.1073/pnas.2109502119>.
147. Hughes, M. N., Arvidson, R. E., Dietrich, W. E., Lamb, M. P., Catalano, J. G., Grotzinger, J. P., & Bryk, A. B. (2022). Canyon wall and floor debris deposits in Aeolis Mons, Mars. *Journal of Geophysical Research: Planets*, 127, e2021JE006848. <https://doi.org/10.1029/2021JE006848>.
146. \*Levin, J.N., \*Dickson, J.L., Lamb, M.P., 2022, Evaluating the Role of Volatiles in Bedrock Chute Formation on the Moon and Mars, *Icarus*, 373, 114774.
145. \*Sun, Z., \*Ulizio, T.P., \*Fischer, J.N., \*Levin, J.N., \*Beer, A.R., \*Dickson, J.L., Lamb, M.P., 2022, Formation of low sloping bedrock chutes by dry rockfall on planetary surfaces, *Geology*, 50 (2): 174–178. doi: <https://doi.org/10.1130/G49286.1>
144. \*Hayden, A.T., Lamb, M.P., Myrow, P., Mohrig, D.C., Williams, R.M.E., Cuevas Martinez, J.L., Cardenas, B.T., Findlay, C.P., Ewing, R.C., McElroy, B.J., 2021, The Oligocene-Miocene Guadalope-Matarranya Fan, Spain, as an analog for long-lived, ridge-bearing megafans on Mars. <https://doi.org/10.1029/2021JE006993>
143. \*Douglas, M., \*Lingappa, U., Lamb, M., Rowland, J., West, A., Li, G., Kemeny, P., Chadwick, A., Piliouras, A., Schwenk, J., Fischer, W., 2021, Impact of river channel lateral migration on the microbial ecology of a discontinuous permafrost floodplain, *Applied and Environmental Microbiology*. 87:e01339-21. <https://doi.org/10.1128/AEM.01339-21>

142. \*Hayden, A.T., Lamb, M.P., McElroy, B.J., in press, Constraining the timespan of fluvial activity from the intermittency of sediment transport on Earth and Mars. *Geophysical Research Letters*, 48, e2021GL092598. <https://doi.org/10.1029/2021GL092598>. [PDF]
141. \*Chadwick, A.J. and Lamb, M.P., 2021, Climate-change controls on river delta avulsion location and frequency. *Journal of Geophysical Research: Earth Surface*, 126, e2020JF005950, <https://doi.org/10.1029/2020JF005950>.
140. Edmonds, D.A., Chadwick, A.J., Lamb, M.P., Lorenzo-Trueba, J., Murray, A.B., Nadin, W., Salter, G., Shaw, J.B., 2021, Morphodynamic Modeling of River-Dominated Deltas: A Review and Future Perspectives, *Treatise on Geomorphology*. [PDF]
139. Li, G., Fischer, W.W., Lamb, M.P., West, Zhang, T., Galy, V., Wang, X., Li, S., Li, G., Zhao, L., Ji, J., 2021, Coal fly ash is a major carbon flux in the Changjiang (Yangtze) River basin, *Proceedings of the National Academy of Science*, 118 (21) e1921544118; DOI: 10.1073/pnas.1921544118.138. Scheingross, J.S. and Lamb, M.P., 2021, Thresholds of sediment scour and bedrock erosion in waterfall plunge pools.
138. Scheingross, J.S. and Lamb, M.P., 2021, Mass balance controls on sediment scour and bedrock erosion in waterfall plunge pools. *Geology*, 2021; doi: <https://doi.org/10.1130/G48881.1>.
137. Larsen, I.J., Karley, K.A., Lamb, M.P., Pritchard, C.J., 2021, Empirical evidence for cosmogenic <sup>3</sup>He production by muons, *Earth and Planetary Science Letters*, 562, 10.1016/j.epsl.2021.116825.
136. \*Kemeny, P., Torres, M.A., Lamb, M.P., Webb, S.M., Dalleska, N., Cole, T., Hou, Y., Marske, J.P., Adkins, J.F., Fischer, W.W., 2021, Organic sulfur fluxes and geomorphic control of sulfur isotope ratios in rivers, *Earth and Planetary Science Letters*, 562, <https://doi.org/10.1016/j.epsl.2021.116838>.
135. Lapôtre, M.G.A., Ewing, R.C., Lamb, M.P., 2021, An evolving understanding of enigmatic large ripples on Mars, *Journal of Geophysical Research: Planets*, 126, e2020JE006729, doi: 10.1029/2020JE006729.
134. \*Hayden, A.T., Lamb, M.P., Carney, A.J., 2021, Similar curvature-to-width ratios for channels and channel belts: Implications for paleo-hydraulics of fluvial ridges on Mars, *Geology*, 49 (7): 837–841. doi: <https://doi.org/10.1130/G48370.1.133>.
133. \*Zeichner, S., \*Nghiem, J., Lamb, M.P., \*Takashima, N., \*de Leeuw, J., Ganti, V., Fischer, W.W., 2021, Early plant organics increased global terrestrial mud deposition through enhanced flocculation, *Science*, v. 371 (6528), p. 526-539, doi: 10.1126/science.abd0379.
132. \*Palucis, M.C., \*Ulizio, T.P., Lamb, M.P., 2021, Debris flow initiation from ravel-filled channel-bed failure following wildfire in a bedrock landscape with limited sediment supply, *GSA Bulletin*, doi: 10.1130/B35822.1.
131. \*Beer, A.R. and Lamb, M.P., 2021, Abrasion regimes in fluvial bedrock incision, *Geology*.
130. Moodie, A., Nittrouer, J.A., Ma, H., Carlson, B., Wang, Y., Lamb, M.P., Parker, G., 2020, Suspended-sediment induced stratification inferred from concentration and velocity profile measurements in the lower Yellow River, China. *Water Resources Research*, 56, e2020WR027192. doi: 10.1029/2020WR027192.
129. Brooke, S.A.S., Ganti, V., Chadwick, A.J., Lamb, M.P., 2020, Flood variability determines the location of lobe-scale avulsions on deltas: Madagascar. *Geophysical Research Letters*, 47, e2020GL088797. doi: 10.1029/2020GL088797.

128. \*Dickson, J.L., Lamb, M.P., Williams, R.M.E., Hayden, A.T., Fischer, W.W., 2020, The global distribution of depositional rivers on early Mars. *Geology* 2020; doi: 10.1130/G48457.1.
127. \*Hayden, A.T. and Lamb, M.P., 2020, Fluvial Sinuous Ridges of the Morrison Formation, USA: Meandering, Scarp Retreat, and Implications for Mars. *Journal of Geophysical Research: Planets*, 125, e2020JE006470. doi: 10.1029/2020JE006470.
126. Liao, Tien-Hao, Simard, M., Denbina, M., Lamb, M.P., 2020, Monitoring water level change and seasonal vegetation change in the coastal wetlands of Louisiana using L-band time series, *Remote Sensing*, 12, 2351, doi:10.3390/rs12152351.
125. \*Chadwick, A.J., Lamb, M.P. Ganti, V., 2020, Accelerated river avulsion frequency on lowland deltas due to sea level rise, *Proceedings of the National Academy of Science*.
124. Trower, E.J., Bridgers, S.L., Lamb, M.P., Fischer, W.W., 2020, Ooid cortical stratigraphy reveals common histories of individual co-occurring sedimentary grains, *JGR-Earth Surface*.
123. An, C., Parker, G., Fu, X., Lamb, M.P., Venditti, J.G., 2020, Morphodynamics of downstream fining in rivers with unimodal sand-gravel feed, *River Flow 2020, Proceedings of the 10th Conference on Fluvial Hydrodraulics*, Eds. Uittewaal, W., Franca, M., Valero, D., Chavarrias, V., Ylla Arbos, C., Schielen, R., Crosato, A., Delft, Netherlands.
122. Lamb, M.P., de Leeuw, J., Fischer, W., Moodie, A.J., Venditti, J.G., Nittrouer, J.A., Haught, D., Parker, G., 2020, Mud in rivers transported as flocculated, suspended bed-material, *Nature Geoscience*.
121. \*de Leeuw, J., Lamb, M. P., Parker, G., Moodie, A. J., Haught, D., Venditti, J. G., and Nittrouer, J. A., 2020, Entrainment and suspension of sand and gravel, *Earth Surf. Dynam. Discuss.*, doi.org/10.5194/esurf-2019-67.
120. Prancevic, J.P., Lamb, M.P., McArdell, B.W., Rickli, C., Kirchner, J.W., 2020, Decreasing landslide sediment yield on steeper slopes in soil-mantled landscapes, *Geophysical Research Letters*, 47, e2020GL087505.doi.org/10.1029/2020GL087505.
119. \*Torres, M.A., \*Kemeny, P.C., Lamb, M.P., Cole, T.L., Fischer, W.W., 2020, Long-term storage and age-biased export of fluvial organic carbon: field evidence from West Iceland. *Geochemistry, Geophysics, Geosystems*, 21, e2019GC008632. doi.org/10.1029/2019GC008632.
118. Ma, H., Nittrouer, J., Wu, B., Zhang, Y., Mohrig, D., Lamb, M., Wang, Y., Fu, X., Moodie, A., Naito, K., Wang, G., Hu, C., Parker, G., 2020, Universal relation with regime transition for sediment transport in fine-grained rivers, *Proceedings of the National Academy of Science*.
117. DiBiase, R.A. and Lamb, M.P., 2020, Dry sediment loading of headwater channels fuels post-wildfire debris flows in bedrock landscapes, *Geology*, v. 48, doi.org/10.1130/G46847.1.
116. Moodie, A.J., Nittrouer, J.A., Ma, H., Carlson, B.N., Chadwick, A.J., Lamb, M.P., Parker, G., 2019, Modeling deltaic lobe-building cycles and channel avulsions for the Yellow River delta, China. *Journal of Geophysical Research - Earth Surface*.
115. Lapotre, M.G.A., Ielpi, A., Lamb, M.P., Williams, R.M.E., Knoll, A.H., 2019, Single-thread rivers without plants: A simple mechanistic model to interpret pre-Silurian and martian fluvial deposits. *Geological Society of America Bulletin*.
114. Larsen, I.J., Farley, K.A., Lamb, M.P., 2019, Cosmogenic <sup>3</sup>He production rate in ilmenite and the redistribution of spallation <sup>3</sup>He in fine-grained minerals, *Geochimica et Cosmochimica Acta* 113. \*Farin, M., Tsai, V.C., Lamb, M.P.,

- Allstadt, K., 2019, A physical model of the high-frequency seismic signal generated by debris flows, *Earth Surface Processes and Landforms*, doi.org/10.1002/esp.4677.
112. Ganti, V., Whittaker, A.C., Lamb, M.P., Fischer, W.W., 2019, Evidence for low gradient, single-threaded rivers prior to greening of the continents, *Proceedings of the National Academy of Science*, 116 (24), p. 11652-11657. doi.org/10.1073/pnas.1901642116.
111. Ganti, V., Lamb, M.P., \*Chadwick, A.J., 2019, Autogenic erosional surfaces in fluvio-deltaic stratigraphy from floods, avulsions and backwater hydrodynamics, *Journal of Sedimentary Research*.
110. \*Haden, A.T., Lamb, M.P., Fischer, W.W., Ewing, R.C., McElroy, B.J., Williams, R.M.E., 2019, Formation of sinuous ridges by inversion of river channel belts on Earth and Mars, *Icarus*.
109. \*Chadwick, A.J., Lamb, M.P., Moodie, A.J., Parker, G., Nittrouer, J.A., 2019, Origin of a preferential avulsion node on lowland river deltas, *Geophysical Research Letters*, doi.org/10.1029/2019GL082491.
108. \*Scheingross, J.S., Lamb, M.P., \*Fuller, B.M., 2019, Self-formed bedrock waterfalls, *Nature*, V. 567, doi: 10.1038/s41586-019-0991-z.
107. \*Trower, E. J., Lamb, M. P., and Fischer, W. W., 2019, The origin of carbonate mud. *Geophysical Research Letters*, 46, 10.1029/2018GL081620.
106. \*Gimbert, \*Fuller, Lamb, Tsai, Johnson, 2019, Investigating river sediment transport mechanics and its control on induced seismic noise using flume experiments and accelerometer-embedded tracers, *Earth Surface Process and Landforms*, 44 (1), doi.org/10.1002/esp.4495.
105. Stack, K.M., Grotzinger, J.P., Lamb, M.P., Gupta, S., Rubin, D.M., Kah, L.C., Edgar, L.A., Fey, D.M., Hurowitz, J.A., McBride, M., Rivera-Hernández, F, Sumner, D.Y., Van Beek, J.K., Williams, R.M.R., Yingst, R.A. 2018, Evidence for plunging river plume deposits in the Pahrump Hills member of the Murray formation, Gale crater, Mars, *Sedimentology*.
104. Sweeney, J., N. H. Warner, V. Ganti, M. P. Golombek, M. P. Lamb, R. Fergason, and R. Kirk, 2018, Degradation of One-Hundred-Meter-Scale Impact Craters on Mars and Implications for Surface Process Rates in the Hesperian and Amazonian, *Journal of Geophysical Research – Planets*.
103. Fan, N., Chu, Z., Jiang, L., Hassan, M., Lamb, M.P., Liu, X., 2018, Abrupt drainage basin reorganization following a Pleistocene river capture, *Nature Communications*.
102. \*Palucis, M., \*Ulizio, T., \*Fuller, B., Lamb, M.P., 2018, Flow resistance, sediment transport, and bedform development in a steep gravel-bedded river flume, *Geomorphology*.
101. Lapotre, M. G. A., R. C. Ewing, C. M. Weitz, K. W. Lewis, M. P. Lamb, B. L. Ehlmann, and D. M. Rubin, 2018, Morphologic Diversity of Martian Ripples: Implications for Large-Ripple Formation, *Geophysical Research Letters*.
100. \*Trower, E.J., O'Reilly, S.S., Gomes, M., Cantine, M., Stein, N., Grotzinger, H., Strauss, J.V., Lamb, M.P., Grotzinger, J.P., Knoll, A.H., Fischer, W.W., in press, Active ooid growth driven by sediment transport in a high energy shoal, Little Ambergris Cay, Turks and Caicos, British Overseas Territories. *J. Sedimentary Research*.
99. \*Trower, E.J., \*Ganti, V., Fischer, W.W., Lamb, M.P., 2018, Erosional surfaces in the Upper Cretaceous Castlegate Sandstone (Utah, USA): Sequence boundaries or autogenic scour from backwater hydrodynamics?, *Geology*, doi: 10.1130/G40273.1.

98. \*Lai, V.H., Tsai, V.C., Lamb, M.P., \*Ulizio, T.P., \*Beer, A.R., 2018, The Seismic Signature of Debris Flows: Flow Mechanics and Early Warning at Montecito, California, *Geophysical Research Letters*.
97. \*Palucis, M., \*Ulizio, T., \*Fuller, B., Lamb, M.P., 2018, Intense granular sheeflow in steep streams, *Geophysical Research Letters*.
96. Booth, A.M., McCarley, J., Hinkle, J., Shaw, S., Ampuero, J-P, Lamb, M.P., 2018, Transient reactivation of a deep-seated landslide complex by undrained loading captured with repeat airborne and terrestrial lidar, *Geophysical Research Letters*.
95. \*Ayoub, F., Jones, C.E., Lamb, M.P., Holt, B., Shaw, J.B., Mohrig, D., Wagner, W., 2018, Inferring surface currents within submerged, vegetated deltaic islands and wetlands from multi-pass airborne SAR. *Remote Sensing of Environment*.
94. Myrow, P.M., Lamb, M.P., Ewing, R.C., 2018, Rapid sea level rise in the aftermath of a Neoproterozoic snowball Earth, *Science*, doi:10.1126/science.aap8612.
93. \*Lapotre, M.G.A., Lamb, M.P., 2018, Substrate controls on valley formation by groundwater on Earth and Mars, *Geology*, doi:10.1130/G40007.1.
92. Allen, G.H, Pavelsky, T.M., Barefoot, E.A., Lamb, M.P., Butman, D, Tashie, A., Gleason, C.J., 2018, Similarity of stream width distributions across headwater systems, *Nature Communications*, 610, doi:10.1038/s41467-018-02991-w.
91. \*Prancevic, J.P., Lamb, M.P., \*Palucis, M., Venditti, J., 2018, The role of three-dimensional boundary stresses in limiting the occurrence and size of experimental landslides, *J. Geophysical Research-Earth Surface*.
90. \*Scheingross, J.S. and Lamb, M.P., 2017, A mechanistic model of waterfall plunge-pool erosion into bedrock, *J. Geophysical Research-Earth Surface*.
89. \*Torres, M. A., Limaye, A. B., Ganti, V., Lamb, M. P., West, A. J., and Fischer, W. W., 2017, Model predictions of long-lived storage of organic carbon in river deposits, *Earth Surface Dynamics*, doi:10.5194/esurf-2017-29.
88. Lamb, M.P., \*\*Brun, F., \*Fuller, B.M., 2017, Direct measurements of lift and drag on shallowly submerged cobbles in steep streams: Implications for flow resistance and sediment transport. *Water Resources Research*.
87. \*Malatesta, L.C. and Lamb, M.P., 2017, Formation of waterfalls by intermittent burial of active faults, *Geological Society of America Bulletin*.
86. \*Palucis, M.C. and Lamb, M.P., 2017, What controls channel form in steep mountain streams? *Geophysical Research Letters*, 44, doi:10.1002/2017GL074198.
85. Ewing, R.C., \*Lapotre, M.G.A., Lewis, K.W., Day, M., Stein, N., Rubin, D.M, Sullivan, R., Banham, S., Lamb, M.P., Bridges, N.T., Gupta, S., Fischer, W.W., 2017, Sedimentary processes of the Bagnold Dunes: Implications for the eolian rock record of Mars, *J. Geophysical Research – Planets*, 122, doi:10.1002/2017JE005324..
84. \*Trower, E., Lamb, M.P., Fischer, W.W., 2017, Experimental evidence that ooid size reflects a dynamic equilibrium between rapid precipitation and abrasion rates, *Earth and Planetary Science Letters*.
83. \*DiBiase, R.A., Lamb, M.P., \*Ganti, V. and \*Booth, A.M., 2017, Slope, grain size and roughness controls on hillslope sediment transport in steep landscapes, *J. Geophysical Research - Earth Surface*.
82. Lamb, M.P., \*\*Brun, F., \*Fuller, B.M., 2017, Hydrodynamics of steep streams with planar coarse-grained beds: Turbulence, flow resistance, and implications for sediment transport, *Water Resources Research*, v. 53, doi:10.1002/2016WR019579.
81. \*Lapotre, M.G.A., Lamb, M.P. and B.J. McElroy, 2017, What sets the size of current ripples?, *Geology*, doi:10.1130/G38598.1.

80. \*Scheingross, J.S., \*\*Lo, D.Y., and Lamb, M.P., 2016, Self-formed waterfall plunge pools in homogeneous rock. *Geophysical Research Letters*, 43, doi:10.1002/2016GL071730.
79. \*Larsen, I.J. and M.P. Lamb, 2016, Progressive incision of the Channeled Scablands by outburst floods, *Nature*, doi:10.1038/nature19817.
78. \*Ganti, V., \*von Hagke, C., \*Scherler, D., Lamb, M.P., Avouac, J.P., Fischer, W.W., 2016, Time scale bias in erosion rates of glaciated landscapes, *Science Advances*, 2, e1600204, doi:10.1126/sciadv.1600204.
77. \*Ganti, V., \*Chadwick, A., \*Hassenruck-Gudipati, H., Lamb, M.P., 2016, Avulsion cycles and their stratigraphic signature on an experimental backwater-controlled delta, *Journal of Geophysical Research - Earth Surface*, 121, doi:10.1002/2016JF003915.
76. \*Lapotre, M. G. A., R. C. Ewing, M. P. Lamb, W. W. Fischer, J. P. Grotzinger, D. M. Rubin, K. W. Lewis, M. J. Ballard, M. Day, S. Gupta, S. G. Banham, N. T. Bridges, D. J. Des Marais, A. A. Fraeman, J. A. Grant, K. E. Herkenhoff, D. W. Ming, M. A. Mischna, M. S. Rice, D. A. Sumner, A. R. Vasavada, R. A. Yingst, 2016, Large wind ripples on Mars: A record of atmospheric evolution, *Science*, v. 353 (6294), p. 55-58, doi: 10.1126/science.aaf3206.
75. \*Lapotre, M.G.A., Lamb M.P. and R.M.E. Williams, 2016, Canyon formation constraints on the discharge of catastrophic outburst floods of Earth and Mars, *Journal of Geophysical Research - Planets*, 121, p. 1-32, doi: 10.1002/2016JE005061.
74. \*Ganti, V., \*Chadwick, A.J., \*Hassenruck-Gudipati, H.J., \*Fuller, B.M., Lamb, M.P., 2016, Experimental river delta size set by multiple floods and backwater hydrodynamics, *Science Advances*, 2, no. 5, e1501768, doi:10.1126/sciadv.1501768.
73. Shaw, J.B., \*Ayoub, F., Jones, C.E., Lamb, M.P., Holt, B., Wagner, W., Coffey, T., Chadwick, J.A. and Mohrig, D., 2016, Airborne radar imaging of subaqueous channel evolution in Wax Lake Delta, Louisiana, USA., *Geophysical Research Letters*, doi: 10.1002/2016GL068770.
72. Lamb, M.P. and Venditti, J.V., 2016, The grain size gap and abrupt gravel-sand transitions in rivers due to suspension fallout. *Geophysical Research Letters*, 43, doi:10.1002/2016GL068713.
71. \*Scheingross, J.S. and Lamb, M.P., 2016, Sediment transport through self-adjusting, bedrock-walled waterfall plunge pools. *Journal of Geophysical Research - Earth Surface, J. Geophys. Res. Earth Surf.*, 121, doi:10.1002/2015JF003620
70. \*Limaye, ABS and Lamb, MP, 2016, Numerical model predictions of autogenic fluvial terraces and comparison to climate change expectations. *Journal of Geophysical Research - Earth Surface*, 121, doi:10.1002/2014JF003392.
69. \*Scherler, D., Lamb, M.P., Rhodes, E.J., Avouac, J.P., 2016, Climate change versus landslide origin of fill terraces in an arid bedrock landscape: San Gabriel River, CA, *Geological Society of America Bulletin*, doi: doi:10.1130/B31356.1.
68. Grotzinger, J.P., S. Gupta, M. C. Malin, D. M. Rubin, J. Schieber, K. Siebach, D. Y. Sumner, K. M. Stack, A. R. Vasavada, R. E. Arvidson, F. Calef III, L. Edgar, W. F. Fischer, J. A. Grant, J. Griffes, L. C. Kah, M. P. Lamb, K. W. Lewis, N. Mangold, M. E. Minitti, M. Palucis, M. Rice, R. M. E. Williams, R. A. Yingst, D. Blake, D. Blaney, P. Conrad, J. Crisp, W. E. Dietrich, G. Dromart, K. S. Edgett, R. C. Ewing, R. Gellert, J. A. Hurowitz, G. Kocurek, P. Mahaffy, M. J. McBride, S. M. McLennan, M. Mischna, D. Ming, R. Milliken, H. Newsom, D. Oehler, T. J. Parker, D. Vaniman, R. C. Wiens, and S. A. Wilson, 2015, Deposition, exhumation and

- paleoclimate of an ancient lake deposit, Mars, *Science*, 350 (6257), doi: 10.1126/science.aac7575.
67. \*Lapotre, MGA and Lamb, MP, 2015, Hydraulics of floods upstream of horseshoe canyons and waterfalls. *Journal of Geophysical Research - Earth Surface*. doi: 10.1002/2014JF003412.
  66. Kite, E.S., Howard, A.D., Lucas, A.S., Armstrong, J.C., Aharonson, O., and Lamb, M.P., 2015, Stratigraphy of Aeolis Dorsa, Mars: Stratigraphic context of the great river deposits, *Icarus*, doi: 10.1016/j.icarus.2015.03.007.
  65. Hooshmand, A., Horner-Devine, A.R., Lamb, M.P., 2015, Structure of turbulence and sediment stratification in wave-supported mud layers, *Journal of Geophysical Research-Oceans*, doi: 10.1002/2014JC010231.
  64. Lamb, M.P., Finnegan, N.J., \*Scheingross, J.S., Sklar, L.S., 2015, New insight into the mechanics of fluvial bedrock erosion through flume experiments and theory, *Geomorphology*, Special issue 46th Annual Binghamton Geomorphology Symposium: Laboratory Experiments in Geomorphology, doi: 10.1016/j.geomorph.2015.03.003.
  63. \*Prancevic, J.P. and Lamb, M.P., 2015, Unraveling bed slope from relative roughness in initial sediment motion. *Journal of Geophysical Research - Earth Surface*. doi: 10.1002/2014JF003323.
  62. \*Prancevic, J.P. and Lamb, M.P., 2015, Particle friction angles in steep mountain channels, *Journal of Geophysical Research - Earth Surface*. doi:10.1002/2014JF003286.
  61. \*Booth, AM, \*Hurley, R, Lamb, MP, Andrade, J, 2014, Force chains as the link between particle and bulk friction angles in granular material, *Geophysical Research Letters*, doi: 10.1002/2014GL061981.
  60. Golombek, M.P., Warner, N.H., \*Ganti, V., Lamb, M.P., Parker, T.J., Ferguson, R.L., Sullivan, R., 2014, Small Crater Modification on Meridiani Planum and Implications for Erosion Rates and Climate Change on Mars. *JGR-Planets*, doi: 10.1002/2014JE004658.
  59. \*Ganti, V., Chu, Z., Lamb, M.P., Nittrouer, J.A., Parker, G., 2014, Testing morphodynamic controls on the location and frequency of river avulsions on fans versus deltas: Huanghe (Yellow River), China, *Geophysical Research Letters*, doi: 10.1002/2014GL061918.
  58. \*Gimbert, F., Tsai, V.C., Lamb, M.P., 2014, A physical model for seismic noise generation by turbulent flow in rivers, *JGR-Earth Surface*, doi: 10.1002/2014JF003201.
  57. \*Ewing, R.C., \*Eisenman, I., Lamb, M.P., Poppick, L., Maloof, A.C., Fischer, W.W., 2014, New constraints on equatorial temperatures during a Late Neoproterozoic snowball Earth glaciation. *Earth and Planetary Science Letters*.
  56. \*DiBiase, R.A., Whipple, K.X., Lamb, M.P., Heimsath, A.M., 2014, The role of waterfalls and knickzones in controlling the style and pace of landscape adjustment in the western San Gabriel Mountains, CA. *GSA Bulletin*.
  55. \*\*Buhler, P.B., Fassett, C., Head, J.W., Lamb, M.P., 2014, Timescales of fluvial activity and intermittency in Milna Crater, Mars, *Icarus*, doi:10.1016/j.icarus.2014.06.028.
  54. \*Chatanantavet, P. and Lamb, M.P., 2014, Sediment transport and topographic evolution of a coupled river and river-plume system: An experimental and numerical study, *Journal of Geophysical Research - Earth Surface*, 119, doi:10.1002/2013JF002810.

53. \*Scheingross, J.S., \*\*Brun, F., \*\*Lo, D.Y., \*\*Omerdin, K., and Lamb, M.P., 2014, Experimental evidence for bedrock erosion by suspended sediment. *Geology*, doi:10.1130/G35432.1.
52. \*Limaye, A.B.S. and Lamb, M.P., 2014, Numerical simulations of bedrock valley evolution by meandering rivers with variable bank material, *Journal of Geophysical Research – Earth Surface*, v. 119, doi:10.1002/2013JF002997.
51. \*Ganti, V., Lamb, M.P., McElroy, B.A., 2014, Quantitative Bounds on Environmental Signal Preservation in the Sedimentary Record. *Nature Communications*, doi:10.1038/ncomms4298.
50. \*Johnson, J.E., \*\*Gerpheide, A., Lamb, M.P., Fischer, W.W., 2014, O<sub>2</sub> constraints from Paleoproterozoic detrital pyrite and uraninite, *Geological Society of America Bulletin*, doi:10.1130/B30949.1.
49. \*Mackey, B.H., \*Scheingross, J.S., Lamb, M.P., Farley, K.A., 2014, Knickpoint formation, rapid propagation and landscape response following coastal cliff retreat at last-interglacial sea-level highstand: Kauai, Hawaii, *GSA Bulletin*, doi: 10.1130/B30930.1.
48. \*Prancevic, J., Lamb, M.P., and \*Fuller, B., 2014, Initial sediment transport across the river-debris flow transition. *Geology*. doi: 10.1130/G34927.1
47. Lamb, M.P., \*Mackey, B.H., Farley, K.A., 2014, Amphitheater-headed canyons formed by megaflooding at Malad Gorge, Idaho. *Proceedings of the National Academy of Science*, doi/10.1073/pnas.1312251111.
46. \*Limaye, A.B.S. and Lamb, M.P., 2014, A vector-based method for bank material tracking in coupled models of meandering and landscape evolution, *Journal of Geophysical Research – Earth Surface*, VOL. 118, 1–17, doi:10.1002/2013JF002854.
45. \*Booth, A.M., Lamb, M.P., Avouac, J.-P., Delacourt, C., 2013, Landslide velocity, thickness and rheology from remote sensing: La Clapiere landslide, France, *Geophysical Research Letters*, v. 40, p. 1-6, doi:10.1002/grl.50828.
44. \*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 large body of water in the northern plains of Mars, *Journal of Geophysical Research - Planets*, v. 118, p. 1-18, doi: 10.1002/jgre.20100.
43. \*Hayes, A.G., R. D. Lorenz, M. A. Donelan, M. Manga, T. Schneider, J. I. Lunine, M. P. Lamb, J. M. Mitchell, W. W. Fischer, S. D. Graves, H. L. Tolman, O. Aharonson, P. Encrenaz, B. Ventura, D. Casarano, C. Notarnicola, and the Cassini RADAR Team, 2013, Wind driven capillary-gravity waves on Titan's Lakes: Hard to Detect or Non-Existent?, *Icarus*, doi: 10.1016/j.icarus.2013.04.004.
42. \*Scheingross, J.S., \*\*Winchell, E.W., Lamb, M.P., Dietrich, W.E., 2013, Influence of bed patchiness, slope, grain hiding, and form drag on gravel mobilization in very streams, *JGR-Earth Surface*, doi: 10.1002/jgrf.20067.
41. Grotzinger, J.P., \*Hayes, A.G., Lamb, M.P., McLennan, S.M., 2013, Sedimentary processes on Earth, Mars, Titan and Venus, In *Comparative Climatology of Terrestrial Planets*, Mackwell, S., Bullock, M. and Harder, J., eds., University of Arizona Press.
40. Lamb, M.P., \*\*Levina, M., \*DiBiase, R.A., \*Fuller, B.M., 2013, Slope, roughness and particle-size controls on sediment storage by vegetation in steep bedrock landscapes: Theory, experiments and implications for post-fire sediment yield, *JGR-Earth Surface*, v, 118, p. 1–14, doi:10.1002/jgrf.20041.
39. \*Chatanantavet P., Whipple K. X., Adams M.A., and Lamb M.P., 2013, Experimental study on coarse grain saltation dynamics in bedrock channels, *J. of Geophysical Research – Earth Surface*, v. 118, p. 1–16, doi:10.1002/jgrf.20053.

38. \*DiBiase, R.A. and Lamb, M.P., 2013, Vegetation and wildfire controls on sediment yield in bedrock landscapes, *Geophysical Research Letters*, v. 40, p. 1-5, doi: 10.1029/2013GL055108.
37. \*Mackey, B.H., Lamb, M.P., 2013, Deciphering boulder mobility from cosmogenic exposure age dating, *JGR - Earth Surface*, v. 118, p. 184-197, doi: 10.1002/jgrf.20035.
36. \*Kite, E.S., Lewis, K.W., Lamb, M.P., 2013, Growth and form of the mound in Gale Crater, Mars: Slope-wind enhanced erosion and transport, *Geology*, v. 41(5), p. 543-546, doi:10.1130/G33909.1.
35. \*Scheingross, J.S., \*Minchew, B., \*Mackey, B.H., Simons, M., Lamb, M.P., Hensley, S., 2013, Fault zone controls on the spatial distribution of slow moving landslides, *Geological Society of America Bulletin*, v. 125, p. 473-489, doi: 10.1130/B30719.1.
34. Burr, D.M., Perron, J.T., Lamb, M.P., Irwin, R.P., Collins, G., Howard, A.D., Sklar, L.S., Moore, J.M., Ádámkóvics, M., Baker, V., Drummond, S.A., Black, B.A., 2013, Fluvial Features on Titan, *Geological Society of America Bulletin*, v. 125, p. 299–321, doi:10.1130/B30612.1.
33. Lamb, M.P., Fischer, W.W., Raub, T.D., Perron, J.T., Myrow, P.M., 2012, Origin of giant wave ripples in Snowball Earth cap carbonates, *Geology*, v. 40(9), p. 827-830, doi:10.1130/G33093.1.
32. Tsai, V.C., \*Minchew, B., Lamb, M.P., Ampuero, J.-P., 2012, A Physical Model for Seismic Noise Generation from Sediment Transport in Rivers, *Geophysical Research Letters*, v. 39, p. 1-6, doi:10.1029/2011GL050255.
31. \*Chatanantavet, P., M. P. Lamb, and J. A. Nittrouer, 2012, Backwater controls on avulsion location on deltas, *Geophys. Res. Lett.*, v. 39, p. 1-6, doi:10.1029/2011GL050197.
30. Lamb, M.P., J. Nittrouer, D. Mohrig, J. Shaw, 2012, Backwater and river-plume controls on scour upstream of river mouths: Implications for fluvio-deltaic morphodynamics. *Journal of Geophysical Research Earth Surface*, v. 117, p. 1-15, F01002, doi:10.1029/2011JF002079
29. Nittrouer, J.A., Shaw, J., Lamb, M.P., Mohrig, D., 2012, Spatial and temporal trends for water-flow velocity and bed-material transport in the lower Mississippi River. *Geological Society of America Bulletin*, v. 124, p. 400-414, doi: 10.1130/B30497.1.
28. Lamb, M.P., Grotzinger, J., Southard, J.B., Tosca, N., 2012, Were ripples on Mars formed by flowing brines? in J. Grotzinger and R. Milliken (eds.), *Sedimentary Geology on Mars*, SEPM Special Publication No. 102, p. 139-150.
27. \*Mackey, B.H., J.J. Roering, M.P. Lamb, 2011, Landslide-dammed paleolake perturbs anadromous fish evolution and marine sedimentation. *Proceedings of the National Academy of Science*, doi:10.1073/pnas.1110445108, p. 1-5.
26. Lamb, M.P., \*Scheingross, J., \*Swanson, E., \*Amidon, W., \*Limaye, A., 2011, A model for post-fire sediment flux by dry ravel in steep landscapes. *Journal of Geophysical Research – Earth Surface*, F03006, p. 1-13, doi:10.1029/2010JF001878.
25. \*\*Buhler, P.B., Fassett, C., Head, J.W., Lamb, M.P., 2011, Paleolakes in Erythraea Fossa, Mars: Implications for an ancient active hydrological cycle. *Icarus*, v. 213, p. 104-115, doi:10.1016/j.icarus.2011.03.004.
24. Tosca, N.J., McLennan, S., Lamb, M.P., Grotzinger, J., 2011, Physico-chemical properties of concentrated Martian surface waters. *Journal of Geophysical Research – Planets*, v. 116, p. 1-16, doi:10.1029/2010JE003700.

23. Conway, S.J., Lamb, M.P., Balme, M.R., Towner, M.C., Murray, J.B., 2011, Enhanced runoff and erosion by overland flow at low pressure and subfreezing conditions: experiments and application to Mars. *Icarus*, 211, p. 458-471, doi:10.1016/j.icarus.2010.08.026.
22. Yan, B., Zhang, Q., Lamb, M.P., 2010, Time-averaged turbulent mixing and vertical concentration distribution of high-density suspensions formed under waves, in *Coastal Engineering*, Eds. Smith, J.M. and Lynett, P., v. 32, p. 1-8.
21. Lamb, M.P. and Fongstad, M.A., 2010, Rapid formation of a modern bedrock canyon by a single flood event. *Nature Geoscience*, p. 1-5, DOI: 10.1038/NGEO894.
20. Lamb, M.P., \*McElroy, B., \*\*Kopriva, B., \*Shaw, J. and Mohrig, D., 2010, Linking river-flood dynamics to hyperpycnal-plume deposits: Experiments, theory, and geological implications. *Geological Society of America Bulletin*, 122(9/10), p. 1389-1400, doi: 10.1130/B30125.1.
19. Lamb, M.P. and Mohrig, D., 2009, Do hyperpycnal plumes record river flood dynamics? *Geology* 7(12); p. 1067–1070; doi: 10.1130/G30286A. *Noted on Geology's Most Read List, January 2010.*
18. Lamb, M.P. and Dietrich, W.E., 2009, The persistence of waterfalls in fractured rock. *Geological Society of America Bulletin*, doi: 10.1130/B26842.1.
17. Lamb, M.P., Dietrich, W.E., Aciego, S.M., DePaolo, S.M., Manga, M., 2008, Formation of Box Canyon, Idaho, by megaflood: Implications for seepage erosion on Earth and Mars. *Science*, 320, 1067, doi: 10.1126/science.1156630.
16. Lamb, M.P., Dietrich, W.E. and Sklar, L.S., 2008, A model for fluvial bedrock incision by impacting suspended and bedload sediment. *Journal of Geophysical Research – Earth Surface* 113, F03025, doi:10.1029/2007JF000915.
15. Lamb, M.P., Dietrich, W.E., and Venditti, J.G., 2008, Is the critical Shields stress for incipient sediment motion dependent on channel-bed slope? *Journal of Geophysical Research – Earth Surface*, 113, F02008, doi:10.1029/2007JF000831.
14. Lamb, M.P., Myrow, P.M., Lukens, C., Houck, K., and Strauss, J., 2008, Deposits from wave-influenced turbidity currents: Pennsylvanian Minturn Formation, Colorado, USA. *Journal of Sedimentary Research*, 78, doi: 10.2110/jsr.2008.052.
13. Myrow, P.M., Lukens, C., Lamb, M.P., Houck, K. and Strauss, J., 2008, Dynamics of a transgressive prodeltaic system: Implications for geography and climate within a Pennsylvanian intracratonic basin, Colorado, USA. *Journal of Sedimentary Research*, 78, doi: 10.2110/jsr.2008.061.
12. Lamb, M.P., Parsons, J.D., Mullenbach, B.L., Finlayson, D.P., Orange, D. and Nittrouer, C., 2008, Evidence for superelevation, channel incision and formation of cyclic steps by turbidity currents in Eel Canyon, California. *Geological Society of America Bulletin*, 120, p. 463 – 475, doi: 10.1130/B26184.1.
11. Lamb, M.P., Howard, A.D., Dietrich, W.E. and Perron, J.T., 2007, Formation of amphitheatre-headed valleys by waterfall erosion after large-scale slumping on Hawai'i. *Geological Society of America Bulletin*, 119, p. 805-822, doi: 10.1130/B25986.1.
10. Liang, H., Lamb, M.P. and Parsons, J.D., 2007, Formation of a sandy near-bed transport layer from a fine-grained bed under oscillatory flow. *Journal of Geophysical Research – Oceans*, 112, C02008, doi: 10.1029/2006JC003635.
9. Aciego, S.M., DePaolo, D.J., Kennedy, B.M., Lamb, M.P., Sims, K. and Dietrich, W.E., 2007, Combining [<sup>3</sup>He] cosmogenic dating with U-Th/He eruption ages using olivine in basalt. *Earth and Planetary Science Letters*, doi: 10.1016/j.epsl.2006.11.039.

8. Toniolo, H., Lamb, M. and Parker, G., 2006, Depositional turbidity currents in diapiric minibasins on the continental slope: formulation and theory. *Journal of Sedimentary Research*, 76, doi: 10.2110/jsr.2006.071.
7. Perron, J.T., Lamb, M.P., Koven, C.D., Fung, I.Y., Yager, E. and Adamkovics, -M., 2006, Valley formation and methane precipitation rates on Titan. *Journal of Geophysical Research – Planets*, Vol. 111, E11001, doi: 10.1029/2005JE002602.
6. Lamb, M.P., Howard, A.D., Johnson, J., Whipple, K., Dietrich, W.E. and Perron, J.T., 2006, Can springs cut canyons into rock? *Journal of Geophysical Research – Planets*, 111, E07002, doi: 10.1029/2005JE002663.
5. Lamb, M.P., Toniolo, H. and Parker, G., 2006, Trapping of sustained turbidity currents by intraslope minibasins. *Sedimentology*, 53, p. 147 – 160, doi: 10.1111/j.1365-3091.2005.00754.x.
4. Dietrich, W.E., Nelson, P.A., Yager, E., Venditti, J.G., Lamb, M.P., and Collins, L., 2006, Sediment patches, sediment supply, and channel morphology. In Parker, G., and Garcia, M. (eds.), *River, Coastal, and Estuarine Morphodynamics*, IAHR Symposium, Taylor and Francis, London, vol. 1, p. 79-90.
3. Lamb, M.P. and Parsons, J.D., 2005, High-density suspensions formed under waves. *Journal of Sedimentary Research*, 79, 386-397.
2. Lamb, M.P., D'Asaro, E. and Parsons, J.D., 2004, Turbulent structure of high-density suspensions formed under waves. *Journal of Geophysical Research - Oceans*, 109, p. C12026-C12039, doi: 10.1029/2004JC002355.
1. Lamb, M.P., Hickson, T., Marr, J.G., Sheets, B., Paola, C. and Parker, G., 2004, Surging versus continuous turbidity currents: flow dynamics and deposits in an experimental intraslope basin. *Journal of Sedimentary Research*, 74(1), p. 148-155.

#### **Other Publications**

2. Lamb, M.P., 2008, *The Formation of Amphitheater-Headed Canyons*, PhD dissertation, University of California, Berkeley, California, 297 pp.
1. Myrow, P.M., Lamb, M., Lukens, C., Houck, K., Kluth, C., and Parsons, J., 2004, *Hyperpycnal wave-modified turbidites of the Pennsylvanian Minturn Formation, north-central Colorado*: Geological Society of America Field Trip Guide, 28 p.