

## David Litwin

Ph.D. Candidate  
Johns Hopkins University  
Department of Environmental Health and Engineering  
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<b>Research Interests</b>	Runoff generation, groundwater, landscape evolution.	
<b>Education</b>	<b>Ph.D., Geography and Environmental Engineering</b> Johns Hopkins University, Baltimore, MD Expected completion 2023	2018-present 2013-2018
	<b>B.S., Civil Engineering, University Honors</b> University of Illinois at Urbana-Champaign, Urbana, IL	2013-2018
	<b>B.M., Instrumental Music Performance</b> University of Illinois at Urbana-Champaign, Urbana, IL	
<b>Research Experience</b>	<b>Doctoral Research</b> Johns Hopkins University	2018-present
	<b>INSTAAR research associate</b> University of Colorado Boulder	2019
	<b>NSF-REU: Earth Systems Research for Environmental Solutions</b> Biosphere 2, University of Arizona	2017
	<b>REU: National Great Rivers Research and Education Center</b> NGRREC and University of Illinois at Urbana-Champaign	2016
<b>Teaching Experience</b>	<b>500.113 Gateway Computing: Python Lead Course Assistant</b> Johns Hopkins University - Weekly office hours - Three-times weekly course assistance - Grading	2021
	<b>570.353 Hydrology Teaching Assistant</b> Johns Hopkins University - Weekly office hours - Three lectures and associated course materials	2018, 2020
<b>Awards and Fellowships</b>	<b>Horton Research Grant</b> American Geophysical Union, \$10,000	2019-2020
	<b>M. Gordon Wolman Fellowship</b> Johns Hopkins University	2018-2019

<b>Lee and Albert H. Halff Doctoral Student Award</b>	2018-2019
Johns Hopkins University, \$3000	
<b>Annual Meeting Attendance Scholarship</b>	2019
Community Surface Dynamics Modeling System	
<b>Melih T. Dural Undergraduate Research Prize</b>	2018
University of Illinois, \$625	
<b>Engineering Achievement Scholarship</b>	2017
University of Illinois, \$1000	
<b>Vernon Lucy III/SUEZ Scholarship</b>	2017
American Water Works Association, \$5000	
<b>Clean Drinking Water Scholarship</b>	2017
Illinois Water Environment Association, \$1000	
<b>Safe Water Scholarship</b>	2017
Illinois Section American Water Works Association, \$1500	
<b>Edward Krolick Music Performance Scholarship</b>	2013-2017
University of Illinois	

**Publications**     **Litwin, D. G.**, Tucker, G. E., Barnhart, K. R., & Harman, C. J. (2021). Groundwater affects the geomorphic and hydrologic properties of coevolved landscapes. *Journal of Geophysical Research: Earth Surface*, in press. <https://doi.org/10.1029/2021JF006239>

**Litwin, D.**, Tucker, G., Barnhart, K., & Harman, C. (2020). GroundwaterDupuitPercolator: A Landlab component for groundwater flow. *Journal of Open Source Software*, 5(46), 1935. <https://doi.org/10.21105/joss.01935>

**Conference Presentations and posters**     \*Presenting author

**Litwin, D. G.\***, Tucker, G. E., Barnhart, K. R., & Harman, C. J. (2021), EP45G-1574: The Hydrogeomorphic Evolution of Variable Source Areas. Poster. *American Geophysical Union Fall Meeting*.

Sklar, L. S.\*, Callahan, R. P., Carr, B., Chiaviello, A., Cist, N., Davis, E., Flinchum, B., Harman, C. J., Hayes, J. L., Holbrook, H., **Litwin, D.**, Moon, S., Neely, A., Plante, Z., Richter Jr, D. B., Riebe, C. S., Singha, K., Weinheimer, N. (2021) EP45G-1573: Variation in Hillslope Sediment Size Controlled by Differences in Subsurface Weathering in a Transient Piedmont Landscape, South Carolina, USA. Poster. *American Geophysical Union Fall Meeting*.

Harman, C. J.\*, Bemis, S. P., Callahan, R. P., Carr, B., Eppinger, B., Flinchum, B., Hayes, J. L., Holbrook, H., **Litwin, D.**, Moon, S., Riebe, C. S., Singha, Sklar, L. S., (2021), H41B-06: Panola Mountain revisited: intensive geophysical and geochemical studies reveal the structure of the deep critical zone at a classic hydrologic study site. Oral. *American Geophysical Union Fall Meeting*.

**Litwin, D.**\*, C. J. Harman, Tucker, G.E., Barnhart, K. R., (2021), EGU21-5863: A hydrogeomorphic perspective on emergent topographic properties at landscape equilibrium. vPICO. *European Geosciences Union General Assembly*.

**Litwin, D.**\*, C. J. Harman, Tucker, G.E., Barnhart, K. R., (2020), EP040-03: Groundwater affects geomorphic and hydrologic properties of coevolved landscapes. Oral. *American Geophysical Union Fall Meeting*.

**Litwin, D.**\*, C. J. Harman, Tucker, G.E., Barnhart, K. R., (2019), H31O-1954: A Numerical Exploration of Coevolution Between Runoff Pathways, Climate, and Landscape Morphology. Poster. *American Geophysical Union Fall Meeting*.

**Litwin, D.**\*, C. J. Harman, T. Zaki, (2019): Implicit-spectral solution for a simple landscape evolution model. Poster. *Community Surface Dynamics Modeling System Annual Meeting*.

**Litwin, D.**\*, A. Meira Neto, P. A. Troch, (2018), H23N-2153: Scaling of flow quantiles and mean catchment fluxes and storage provides empirical formulation of the flow duration curve. Poster. *American Geophysical Union Fall Meeting*.

**Litwin, D.**\*, A. Meira Neto, P. A. Troch, (2017), 304919: Evaluating the effectiveness of ERT for assessing subsurface structure at the landscape evolution observatory. Poster. *Geological Society of America Annual Meeting*.

**Litwin, D.,** A. Meira Neto,\* P. A. Troch, (2017), B43A-1548: An electrical resistivity-based method for investigation of subsurface structure. Poster. *American Geophysical Union Fall Meeting*.

**Department Presentations** **Litwin, D.,\*** (2019), A comparison of landscape form and hydrological response in headwater catchments. Oral. Environmental Engineering and Sciences Seminar Series. Johns Hopkins University.

**Litwin, D.,\*** (2020), Exploring coevolution of catchment hydrology and geomorphology using Landlab. Oral. Environmental Engineering and Sciences Online Seminar Series. Johns Hopkins University.

**Litwin, D.,\*** (2021), Groundwater affects geomorphic and hydrologic properties of coevolved landscapes. Oral. Environmental Health and Engineering Student Seminar. Johns Hopkins University.

**Invited Presentations** **Litwin, D.,\*** (2021), The coevolution of landscape morphology and shallow groundwater. Oral. Center for Environmental and Applied Fluid Mechanics Seminar Series. Johns Hopkins University

<b>Service</b>	<b>Committee member.</b> Hydrological sciences student subcommittee (H3S). American Geophysical Union.	2020-present
	<b>Department Representative.</b> Graduate Representative Organization. Johns Hopkins University.	2019-2021
	<b>Whiting School Representative.</b> Environmental Health and Engineering Student Organization. Johns Hopkins University.	2019-2020
	<b>Invited panelist.</b> Virtual Forum: Transitioning to Online Education, Graduate Student Panel. Consortium of Universities for the Advancement of Hydrologic Science.	May 15, 2020

<b>Professional societies</b>	<b>American Geophysical Union</b>	2017-present
	<b>Geological Society of America</b>	2017-present