

**Ben Leshchinsky**  
**Associate Professor, Geotechnical Engineering, Dual Appointment**  
**School of Civil and Construction Engineering // College of Forestry**  
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### Education

- B.S. in Civil Engineering, University of Delaware, 2007.
- M.S. in Civil Engineering, Columbia University, 2008.
- M.Phil. in Civil Engineering, Columbia University, 2010.
- Ph.D. in Civil Engineering, Columbia University, 2012.

### Honors and Awards

- Aufderhide Undergraduate Mentoring Award, Oregon State University, 2015.
- *ASCE Journal of Geotech. and Geoenv. Engineering* Reviewer of the Year, 2015.
- Oregon State University Mortar Board Society Top Professor, 2016.
- *ASCE Journal of Geotech. and Geoenv. Engineering* Reviewer of the Year, 2016.
- Young Professional Best Paper Award, *International Landslide Symposium*, 2016.
- Top Professor, OSU Mortar Board Society, 2016.
- Runner-up for Best Paper of 2015, *Geotextiles and Geomembranes*, 2016.
- Sole mentor to OSU College of Engineering Graduate Student Award recipient, 2017.
- Best Paper of 2017, *Geotextiles and Geomembranes*, 2018.
- International Geosynthetics Society Young Member Achievement Award, 2018.

### Service Activities

- Editorial Board Member, *Geotextiles and Geomembranes*, 2017-Present.
- Editorial Board Member, *ASCE Journal of Geotechnical and Geoenvironmental Engineering*, 2018-Present.
- Journal Reviewer (150+ Papers, 21 Journals): *ASCE Journal of Geotechnical and Geoenvironmental Engineering*, *ASCE Journal of Survey Engineering*, *ASCE Journal of Bridge Engineering*, *ASCE Journal of Materials in Civil Engineering*, *Journal of Geotechnical and Geological Engineering*, *Transportation Infrastructure Geotechnology*, *Geotextiles and Geomembranes*, *Geosynthetics International*, *Remote Sensing, Soils and Foundations*, *Geotechnique*, *Geotechnique Letters*, *Landslides*, *ASTM Geotechnical Journal*, *Transportation Geotechnics*, *Computers and Geotechnics*, *International Journal of Analytical and Numerical Methods in Geomechanics*, *Canadian Geotechnical Journal*, *Geomatics*, *Natural Hazards and Risk*, *Journal of GeoEngineering*, and *Soil Dynamics and Earthquake Engineering*.

### Professional Licensure

Professional Engineer, Oregon, License Number 90573PE

### Journal Articles

1. **Leshchinsky, B.**, Booth, A. M., Glover-Cutter, K. M., Mohny, C., Olsen, M. J., & Roering, J. J. (2018). Prepare for Cascadia's next earthquake. *Science*, 362(6418), 1007-1007.
2. Rahimi, M., Tafreshi, S.N., **Leshchinsky, B.**, and A. Dawson. (2019). "Cyclic and Post-cycling Anchor Response in Geocell-Reinforced Sand". *Canadian Geotechnical Journal*. In press.
3. Hossley, A. and **B. Leshchinsky**. (2019). "Stability and Failure Mechanisms of Slopes with Spatially Varying Shear Strength." *Journal of Geotechnical and Geoenvironmental Engineering*. In press.
4. Belart, F., **Leshchinsky, B.**, Chung, W. Green, P., Morrissette, B., Sessions, J. and J. Wimer. (2019). "Sliding Stability of Cable-Assisted Tracked Equipment on Steep Slopes." *Forest Science*. In press.
5. Stockton, E., **Leshchinsky, B.**, Xie, Y. and M. Olsen (2018). "A Generalized Approach Towards Assessing Slope Stability in Heterogeneous Soils." *Transportation Infrastructure Geotechnology*. In press.
6. Hung, C., Lin, G.W., **Leshchinsky, B.** and K. Hsien-Li. (2018) "Extracting Region-Specific Runout Behavior and Rainfall Thresholds for Massive Landslides using Seismic Records: A Case Study in Southern Taiwan." Submitted to *Bulletin of Engineering Geology and the Environment*.
7. Mancuso, C., Belart, F., **Leshchinsky, B.**, Russell, M. and J. Kiser (2018). "Behavior and Assessment of Mobile Anchors in Cable Yarding Systems." *Canadian Journal of Forest Research*. In press.

8. Mancuso, C., Belart, F., and **Leshchinsky, B.** (2018). "Operative Loading in Cable Yarding Systems: Field Observations of Static and Dynamic Tensions in Mobile Anchor Systems." *Canadian Journal of Forest Research*. In press.
9. Tafreshi, M., Rahimi, M., **Leshchinsky, B.** and A. Dawson. (2018). "Experimental and Numerical Investigation of Uplift Capacity of Plate Anchors in Geocell-Reinforced Soil." *Geotextiles and Geomembranes*. In press.
10. Rahimi, M., **Leshchinsky, B.**, Tafreshi, M. (2018). "Assessing the Ultimate Uplift Capacity of Plate Anchors in Geocell-Reinforced Sand." *Geosynthetics International*. In press.
11. Hung, C., Liu, C.H., Lin, G.W., and B. Leshchinsky. (2018) "The Aso-Bridge Coseismic Landslide: A Numerical Investigation of Failure and Runout Behavior using Finite and Discrete Element Methods." *Bulletin of Engineering Geology and the Environment*. In Press.
12. Xie, Y., **Leshchinsky, B.** and Satyal, S. (2018). "Evaluation of Reinforcement Layout on Serviceability of Mechanically Stabilized Earth Walls Supporting Spread Footings." *Ground Improvement*. In press.
13. **Leshchinsky, B.** (2018). "Nested Newmark Model to Calculate the Post-Earthquake Profile of Slopes." *Engineering Geology*. In press.
14. Satyal, S., **Leshchinsky, B.**, Han, J., and M. Neupane. (2018) "Use of Cellular Confinement for Improved Railway Performance on Soft Subgrades: A Numerical Study." *Geotextiles and Geomembranes*. In Press.
15. **Leshchinsky, B.**, Mason, H., Olsen, M. and D. Gillins. (2018) "Lateral Spreading within a Limit Equilibrium Framework: Newmark Sliding Blocks with Degrading Yield Accelerations." *Geotechnique*. In press.
16. Leshchinsky, D., **Leshchinsky, B.**, and Leshchinsky, O. (2017). "Limit state design framework for geosynthetic-reinforced soil structures." *Geotextiles and Geomembranes*. In press.
17. **Leshchinsky, B.**, Olsen, M. J., Mohny, C., Glover-Cutter, K., Crook, G., Allan, J., & Mathews, N. (2017). Mitigating coastal landslide damage. *Science*, 357(6355), 981-982.
18. Wang, L., **Leshchinsky, B.**, Evans, T. M., & Xie, Y. (2017). Active and passive arching stresses in  $c'-\phi'$  soils: A sensitivity study using computational limit analysis. *Computers and Geotechnics*, 84, 47-57.
19. Hess, D. M., **Leshchinsky, B.**, Bunn, M., Mason, H. B., & Olsen, M. J. (2017). A simplified three-dimensional shallow landslide susceptibility framework considering topography and seismicity. *Landslides*, 1-21.
20. Gaidzik, K., Ramírez-Herrera, M. T., Bunn, M., **Leshchinsky, B.**, Olsen, M., & Regmi, N. R. (2017). Landslide manual and automated inventories, and susceptibility mapping using LIDAR in the forested mountains of Guerrero, Mexico. *Geomatics, Natural Hazards and Risk*, 1-26.
21. Belart, F., Sessions, J., **Leshchinsky, B.** and G. Murphy. (2017). "Economic implications of moisture content and logging system in forest harvest residue delivery for energy production: a case study." *Canadian Journal of Forest Research*.
22. Sessions, J., **Leshchinsky, B.**, Chung, W., Boston, K., & Wimer, J. (2017). Theoretical Stability and Traction of Steep Slope Tethered Feller-Bunchers. *Forest Science*, 63(2), 192-200.
23. Belart, F., **Leshchinsky, B.** and Sessions, J. (2016) "Finite element analysis to predict in-forest stored harvest residue moisture content." *Forest Science*.
24. Xie, Y., **Leshchinsky, B.**, & Yang, S. (2016). Evaluating reinforcement loading within surcharged segmental block reinforced soil walls using a limit state framework. *Geotextiles and Geomembranes*, 44(6), 832-844.
25. **Leshchinsky, B.** and Y. Xie. Bearing Capacity of Footings Placed near  $c'-\phi'$  Slopes. (2016). *ASCE Journal of Geotechnical and Geoenvironmental Engineering*. In press.
26. Zhang, F., Leshchinsky, D., Baker, R., Gao, Y., & **Leshchinsky, B.** (2016). Implications of variationally derived 3D failure mechanism. *International Journal for Numerical and Analytical Methods in Geomechanics*, 40(18), 2514-2531.
27. Vahedifard, F., Mortezaei, K., **Leshchinsky, B.**, Leshchinsky, D., & Lu, N. (2016). Role of suction stress on service state behavior of geosynthetic-reinforced soil structures. *Transportation Geotechnics*. In press.
28. Xie, Y., & **Leshchinsky, B.** (2016). Active earth pressures from a log-spiral slip surface with arching effects. *Géotechnique Letters*, 1-7.
29. Gao, Y., Yang, S., Zhang, F., & **Leshchinsky, B.** (2016). Three-dimensional reinforced slopes: Evaluation of required reinforcement strength and embedment length using limit analysis. *Geotextiles and Geomembranes*, 44(2), 133-142.
30. **Leshchinsky, B.**, Evans, T. M., & Vesper, J. (2016). Microgrid inclusions to increase the strength and stiffness of sand. *Geotextiles and Geomembranes*, 44(2), 170-177.
31. Yang, S., **Leshchinsky, B.**, Zhang, F., & Gao, Y. (2016). Required strength of geosynthetic in reinforced soil structures supporting spread footings in three dimensions. *Computers and Geotechnics*, 78, 72-87.

32. Ambauen, S., **Leshchinsky, B.**, Xie, Y., & Rayamajhi, D. (2015). Service-state behavior of reinforced soil walls supporting spread footings: a parametric study using finite-element analysis. *Geosynthetics International*, 23(3), 156-170.
33. **Leshchinsky, B.**, & Ambauen, S. (2015). Limit equilibrium and limit analysis: comparison of benchmark slope stability problems. *Journal of Geotechnical and Geoenvironmental Engineering*, 141(10), 04015043.
34. Vahedifard, F., **Leshchinsky, B.**, Mortezaei, K., & Lu, N. (2015). Active earth pressures for unsaturated retaining structures. *Journal of Geotechnical and Geoenvironmental Engineering*, 141(11), 04015048.
35. **Leshchinsky, B.**, Vahedifard, F., Koo, H. B., & Kim, S. H. (2015). Yumokjeong Landslide: an investigation of progressive failure of a hillslope using the finite element method. *Landslides*, 12(5), 997-1005.
36. **Leshchinsky, B.**, Olsen, M. J., & Tanyu, B. F. (2015). Contour Connection Method for automated identification and classification of landslide deposits. *Computers & Geosciences*, 74, 27-38.
37. **Leshchinsky, B.** (2015). Bearing capacity of footings placed adjacent to  $c'-\phi'$  slopes. *Journal of Geotechnical and Geoenvironmental Engineering*, 141(6), 04015022.
38. Xie, Y., & **Leshchinsky, B.** (2015). MSE walls as bridge abutments: Optimal reinforcement density. *Geotextiles and Geomembranes*, 43(2), 128-138.
39. **Leshchinsky, B.**, Sessions, J., & Wimer, J. (2015). Analytical design for mobile anchor systems. *International Journal of Forest Engineering*, 26(1), 10-23.
40. Zhang, F., Leshchinsky, D., Gao, Y. and **Leshchinsky, B.** (2014). "Required Unfactored Strength of Geosynthetics in Reinforced 3D Slopes." *Geotextiles and Geomembranes*. 42 (6), 576-585.
41. Ruan, X., Leshchinsky, D., & **Leshchinsky, B.** (2014). Global Stability of Bilinear Reinforced Slopes. *Transportation Infrastructure Geotechnology*, 1-13.
42. **Leshchinsky, B.** (2014). Limit Analysis Optimization of Design Factors for Mechanically Stabilized Earth Wall-Supported Footings. *Transportation Infrastructure Geotechnology*, 1(2), 111-128.
43. Vahedifard, F., **Leshchinsky, B.**, Sehat, S., & Leshchinsky, D. (2014). Impact of Cohesion on Seismic Design of Geosynthetic-Reinforced Earth Structures. *Journal of Geotechnical and Geoenvironmental Engineering*, 140(6).
44. **Leshchinsky, B.**, & Ling, H.I. (2013). Numerical modeling of behavior of railway ballasted structure with geocell confinement. *Geotextiles and Geomembranes*, 36, 33-43.
45. **Leshchinsky, B.**, & Ling, H.I. (2013). Effects of geocell confinement on strength and deformation behavior of gravel. *Journal of Geotechnical and Geoenvironmental Engineering*, 139(2), 340-352.
46. Leshchinsky, D., Vahedifard, F., & **Leshchinsky, B.** (2012). Revisiting bearing capacity analysis of MSE walls. *Geotextiles and Geomembranes*, 34, 100-107.
47. Ling, H. I., Wu, M. H., Leshchinsky, D., & **Leshchinsky, B.** (2009). Centrifuge modeling of slope instability. *Journal of Geotechnical and Geoenvironmental Engineering*, 135(6), 758-767.