Dr. Farshad Amini, Publication List in Levee Research

There are 41 peer-reviewed papers including 26 journal articles that have been published in peer-reviewed journals. There are 15 peer-reviewed conference papers that have been published in conference proceedings based on this project. Dr. Amini has made 16 oral presentations about research findings in national and international conferences. Dr. Amini has published two professional reports. The list of publications is shown below.

Peer Reviewed Journal Articles (*student supervised or co-supervised)

1. Pan, Y.*, Li, L., Amini, F., Kuang, C.P., and Chen, Y. 2016, New Understanding on the Distribution of Individual Wave Overtopping Volumes over a Levee under Negative Freeboard, *Journal of Coastal Research*, 75: 1207-1211.
2. Yuan, S.*, Tang, H., Li, L., Amini, F., 2015, Combined Wave and Surge Overtopping Erosion Failure Model of HPTRM Levees: Accounting for Grass-Mat Strength, *Ocean Engineering*, 109, 256-269.
3. Pan, Y.*, Kuang, C.P., Li, L., and Amini, F., 2015, Full-scale Laboratory Study on Distribution of Individual Wave Overtopping Volumes over a Levee under Negative Freeboard, *Coastal Engineering*, 97: 11-20.
4. Li, L., Rao, X.*, Amini, F., and Tang, H., 2015, SPH Modeling of Hydraulics and Erosion of HPTRM Levee, *Journal of Advanced Research in Ocean Engineering*, 1 (1), 1-13.
5. Li, L., Yuan, S.*, Amini, F., Tang, H., 2015, Numerical Study of Combined Wave Overtopping and Storm Surge Overflow of HPTRM Strengthened Levee, *Ocean Engineering*, 97, 1-11.
6. Pan, Y.*, Li, L., Amini, F., and Kuang, C.P., 2015, Overtopping Erosion and Failure Mechanics of Earthen Levees Strengthened by Vegetated HPTRM system, *Ocean Engineering*, 96, 139-148.
7. Li, L., Amini, F., and Wu, J.*, 2015, Turbulence and Seepage Effect on the Slope Stability of Earthen Levee Strengthened by High Performance Turf Reinforcement Mat, *Journal of Geotechnical and Geological Engineering*, 33 (1), 1-13.
8. Yuan, S.*, Li, L., Amini, F., Tang, H., 2014, Sensitivity of Combined Turbulent Wave Overtopping and Storm Surge Overflow Response to Variations in Levee Geometry, *Journal of Coastal Research*, 31 (3), 702-713.
9. Yuan, S.*, Li, L., Amini, F., and Tang, H., 2014, Numerical Study of Turbulence and Erosion of an HPTRM Strengthened Levee under Combined Storm Surge Overflow and Wave Overtopping, *Journal of Coastal Research*, 30(1): 142-157.
10. Yuan, S.*, Li, L., Amini, F., Tang, H., 2014, Turbulence Measurement of Combined Wave and Surge Overtopping over a Full Scale HPTRM Strengthened Levee, *Journal of Waterways, Coastal and Ocean Engineering*, ASCE, 140(4): 04014014.
11. Li, L., Amini, F., Pan, Y.*, Kuang, C.P., and Briaud, J., 2014, Erosion Resistance of HPTRM Strengthened Levee from Combined Wave and Surge Overtopping, *Journal of Geotechnical and Geological Engineering*, 32(4):847-857.
12. Li, L., Amini, F., Rao, X.*, and Tang, H., 2013, SPH Study of Surge Overflow and Hydraulic Erosion of Earthen Levee Armored by Articulated Concrete Blocks, *Current Development in Oceanography*, 6(2): 61-80.

13. Amini, F., Li, L., and Xu, Y.*, 2013, Two-Dimensional Slope Stability Analysis of Earthen Levee Strengthened by Articulated Concrete Block System under Hurricane Overtopping Flow Conditions, *International Journal of Geotechnical Engineering*, 7(2):178-186.
14. Pan, Y.*, Li, L., Amini, F., and Kuang, C.P., 2013, Comparison of the Hydraulic Performances of Three Levee-Strengthening Systems and Hydraulic Equivalency Analysis between Steady and Intermittent Overtopping, *Journal of Waterways, Coastal and Ocean Engineering*, ASCE, 139(4): 256-266.
15. Pan, Y.*, Li, L., Amini, F., and Kuang, C.P., 2013, Full Scale HPTRM Strengthened Levee Testing under Combined Wave and Surge Overtopping Conditions: Overtopping Hydraulics, Shear Stress and Erosion Analysis, *Journal of Coastal Research*, 29(1): 182-200.
16. Chaterjee, J. and Amini, F., 2013, A Comparative Slope Stability Analysis of Sheet Pile Supported I-wall in New Orleans, Louisiana with Sheet Pile Penetrating into Sand Layer. *Journal of Geomechanics and Geoengineering*. DOI: 10.1080/17486025. 2012.726747: 1-7.
17. Li, L., Amini, F., Rao, X.*, and Tang, H., 2012, SPH Modeling of Surge Overflow over RCC Strengthened Levee, *International Journal of Oceans Systems Engineering*, 2(4): 200-208.
18. Li, L., Pan, Y.*, Kuang, C.P., and Amini, F., 2012, Full Scale Laboratory Study of Combined Wave and Surge Overtopping of a Levee with RCC Strengthening System, *Ocean Engineering*, 54(1): 70-86.
19. Xu, Y.*, Li, L., and Amini, F., 2012, Slope Stability Analysis of Earthen Levee Strengthened by Roller-Compacted Concrete under Hurricane Overtopping Flow Conditions, *International Journal of Geomechanics and Geoengineering*, DOI: 10.1080/17486025.2012.695400.
20. Xu, Y.*, Li, L., and Amini, F., 2012, Slope Stability Analysis of Earthen Levee Strengthened by High Performance Turf Reinforcement Mat under Hurricane Overtopping Flow Conditions, *Geotechnical and Geological Engineering*, 30: 893-905.
21. Rao, X.*, Li, L., Amini, F., and Tang, H., 2012, Smoothed Particle Hydrodynamics Modeling of Combined Wave and Surge Overtopping and Hydraulic Erosion of an Articulated Concrete Block-Strengthened Levee System, *Journal of Coastal Research*, 28(6):1500-1511.
22. Rao, X.*, Li, L., Amini, F., and Tang, H., 2012, Numerical Study of Combined Wave and Surge Overtopping over RCC Strengthened Levee System using Smoothed Particle Hydrodynamics Method, *Ocean Engineering*, 54: 101-109.
23. Chaterjee, J. and Amini, F., 2011, Slope Stability Modeling and Analysis of T-wall Subjected to Hurricane Loading, *International Journal of Geotechnical Engineering*, 5(1):103-112.
24. Xu, Y., Chaterjee, J. and Amini, F., 2011, A Comparative Slope Stability Analysis of New Orleans Levee subjected to Hurricane Loading, *Electronic Journal of Geotechnical Engineering*, 18: 325-336.
25. Chaterjee, J. and Amini, F., 2011, A Comparative Assessment of Slope Stability of New Orleans I-wall with Gap between the Wall and Layered Cohesive Backfill, *Journal of Geomechanics and Geoengineering*, 6(3): 217-225.

26. Chaterjee, J. and Amini, F., and Cooley, L., 2009, A Comparative Slope Stability Analysis of New Orleans I-wall subjected to Hurricane Loading, *International Journal of Geotechnical Engineering*, 3(3): 459-467.

Referred Conference Papers

18. Amini, F., and Li, L., 2015, Slope Stability of an Earthen Levee Strengthened by HPTRM under Turbulent Overtopping Conditions, International Journal of Environmental, Ecological, Geological and Geophysical Engineering, 9(5), 269-272.
19. Pan, Y. Amini, F., and Li, L., 2015, Failure Mechanism of Earthen Levee Strengthened by Vegetated HPTRM System and Design Guideline for Hurricane Overtopping Conditions, Geotechnical Special Publication, No. 256: 2452-2461, ASCE.
20. Li, L., Amini, F., Pan, Y. and Li, C., 2014, Stability Monitoring of Articulated Concrete Block Strengthened Levee in Combined Wave and Surge Overtopping Conditions, Geotechnical Special Publication, No. 234: 262-271, ASCE.
21. Li, L., Amini, F., Yuan, S., and Li, C., 2014, Modeling Study of Erosion of HPTRM Strengthened Levee in Turbulent Overtopping Flow Conditions, Geotechnical Special Publication, No. 234: 1052-1061, ASCE.
22. Li L., Amini, F., and Pan, Y., 2013, Design of Earthen Levee Strengthening with HPTRM for Hurricane Overtopping Conditions, Proceeding of Geosynthetics 2013, Long Beach, CA, April 1-4, 2013, Industrial Fabrics Association International, Roseville, MN, pp. 230-234.
23. Pan, Y., Kuang, C., Li L., and Amini, F., Discussion of the Failure Mechanics of Levees under Combined Wave and Surge Overtopping, Proceeding of 2013 IAHR World Congress, Chengdu, China, September 8-13, 2013, Tsinghua University Press, Beijing, pp. 1-7.
24. Amini, F., Li, L., Yuan, S., 2013, Overtopping Turbulent Flow over a Full Scale HPTRM Strengthened Levee, Proceedings of 23rd International Offshore and Polar Engineering pg. 1217-1222.
25. Li L., Amini, F., and Pan, Y., 2013, Design of Earthen Levee Strengthening with HPTRM for Hurricane Overtopping Conditions, Stability and Performance of Slopes and Embankment III, Geotechnical Special Publication, No. 231, pg. 1892-1901, ASCE.
26. Amini, F., Li, L., and Xu, Y., 2013, Slope Stability Analysis of Three Innovative Earthen Levee Strengthening Systems under Hurricane Overtopping Flow Conditions, Stability and Performance of Slopes and Embankment III, Geotechnical Special Publication, No. 231, pg. 1882-1891, ASCE.
27. Li, L., Amini, F., and Pan, Y., 2013, Erosion Resistance of Earthen Levee Strengthened by HPTRM System under Combined Wave and Surge Overtopping Conditions, Stability and Performance of Slopes and Embankment III, Geotechnical Special Publication, No. 231, pg. 1885-1894, ASCE.
28. Amini, F. and Li, L., 2013, Performance of RCC Strengthened Levee in Full-Scale Overtopping Tests, USSD 33rd Annual Meeting and Conference, Phoenix, AZ, February 11-15, 2013.
29. Amini, F., Li, L., and Pan, Y., 2012, Performance of HPTRM Strengthened Levee in Full-Scale Overtopping Tests, 5th Annual National Dam Security Forum, Denver, CO, September 16-20, 2012.

30. Rao, X., Li, L., and Amini, F., 2010, Modeling of Surge Overtopping and Hydraulic Erosion of an Earthen Levee Using Smoothed Particle Hydrodynamics, Environmental Geotechnics for Sustainable Development, 1695-1698, Tata McGraw Hill.
31. Rao, X., Li, L., and Amini, F., 2010, Numerical Simulation of Wave Overtopping and Erosion of Levee, 2010 CSCE Annual General Meeting and Conference "Engineering a Sustainable World"-2nd Specialty Conference on Disaster Mitigation, Winnipeg, Canada, June 9-12, 2010: DM-09-1-DM-09-5.
32. Rao, X., Li, L., and Amini, F., 2009, Numerical Simulation of Surge Overflow at a Levee using Shallow water SPH Method, World Academy of Science, Engineering and Technology, 60: 331-334.

Conference Presentations

1. Amini, F., and **Li, L.**, 2015, Slope Stability of an Earthen Levee Strengthened by HPTRM under Turbulent Overtopping Conditions, oral presented at the 2015 ICCBE Internal Conference on Civil and Building Engineering, Montreal, Canada, May 11-12, 2015.
2. Pan, Y., Amini, F., and **Li, L.**, 2015, Failure Mechanism of Earthen Levee Strengthened by Vegetated HPTRM System and Design Guideline for Hurricane Overtopping Conditions, oral presented at IFCEE 2015, San Antonio, Texas, March 17-21, 2015.
3. **Li, L.** and Amini, F., 2014, Stability Monitoring of Articulated Concrete Block Strengthened Levee in Combined Wave and Surge Overtopping Conditions, oral presented at ASCE GeoCongress 2014, Atlanta, GA, February 23-26, 2014.
4. **Li, L.,** Amini, F., and Yuan, S., 2014, Modeling Study of Erosion of HPTRM Strengthened Levee in Turbulent Overtopping Flow Conditions, postal presented at ASCE GeoCongress 2014, Atlanta, GA, February 23-26, 2014.
5. Amini, F. and **Li, L.**, 2013, Sensitivity analysis of extended land-side slope to the erosion impact in the HPTRM strengthened levee, oral presentation, or oral presented at the 23rd International Offshore (Ocean) and Polar Engineering Conference, June 30−July 5, 2013, Anchorage, Alaska.
6. **Li L.**, Amini, F., and Pan, Y., 2013, Design of Earthen Levee Strengthening with HPTRM for Hurricane Overtopping Conditions, Geosynthetics 2013, Long Beach, CA, April 1-4, 2013.
7. Amini, F., **Li, L.**, and Xu, Y., 2013, Slope Stability Analysis of Three Innovative Earthen Levee Strengthening Systems under Hurricane Overtopping Flow Conditions, ASCE GeoCongress 2013, San Diego, CA, March 3-6, 2013.
8. **Li, L.**, Amini, F., and Pan, Y., 2013, Erosion Resistance of Earthen Levee Strengthened by HPTRM System under Combined Wave and Surge Overtopping Conditions, ASCE GeoCongress 2013, San Diego, CA, March 3-6, 2013.
9. Amini, F. and **Li, L.**, 2013, Performance of RCC Strengthened Levee in Full-Scale Overtopping Tests, USSD 33rd Annual Meeting and Conference, Phoenix, AZ, February 11-15, 2013.
10. Amini, F., **Li, L.**, and Pan, Y., 2012, Performance of HPTRM Strengthened Levee in Full-Scale Overtopping Tests, 5th Annual National Dam Security Forum, Denver, CO, September 16-20, 2012.

11. Chaterjee, J. and F. Amini, 2012, Investigation of the design criteria for the analysis of I-wall in New Orleans, LA for flood side gap condition, State of the Art and Practice in Geotechnical Engineering, Geotechnical Special Publication, No. 225, pg. 507-515, ASCE.
12. Amini, F., and **Li, L.**, 2012, Performance of Three Innovative Levee Strengthening Systems under Full-Scale Overtopping Testing, oral presented at 2012 Dams Sector R&D Workshop, U.S. Army Corps of Engineer Research and Development Center, Vicksburg, MS January 31–Febuary 1, 2012.
13. Rao, X., Amini, F., and **Li, L.**, 2010, Modeling of Surge Overtopping and Hydraulic Erosion of an Earthen Levee Using Smoothed Particle Hydrodynamics, oral presented at the 6ICEG 2010: Sixth International Congress on Environmental Geotechnics, New Delhi, India, November 8-12, 2010.
14. Rao, X., Amini, F., and **Li, L.**, 2010, Numerical Simulation of Wave Overtopping and Erosion of Levee, oral presented at the 2010 CSCE Annual General Meeting and Conference "Engineering a Sustainable World", Winnipeg, Canada, June 9-12, 2010.
15. Chaterjee, J. and F. Amini, 2010, A Comparative evaluation of unbalanced load in the stability analysis of New Orleans T-Wall subjected to hurricane loading, Advances in Analysis, Modeling & Design, Geotechnical Special Publication, No. 199: 2173-2181, ASCE.
16. Rao, X., **Li, L.**, and Amini, F., 2009, Numerical Simulation of Surge Overflow at a Levee Using Shallow Water SPH Method, oral presented at the ICCFD 2009: International Conference on Computational Fluid Dynamics, Bangkok, Thailand, Dec. 25-27, 2009.

Professional Reports

1. Amini, F., and **Li, L.**, 2012, High Performance Turf Reinforcement Mat Strengthened Levee under Combined Wave and Storm Surge Turbulent Overtopping Conditions, U.S. Department of Homeland Security, September 30, 2012.
2. Amini, F., and **Li, L.**, 2012, Full-Scale Overtopping Tests on Three Innovative Levee Strengthening Systems, U.S. Department of Homeland Security, August 30, 2012.