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Ning Lin
Princeton University
Department of Civil & Environmental Engineering, E-Quad E328
nlin@princeton.edu
http://ninglin.princeton.edu/

Education:

Ph.D.,	Civil and Environmental Engineering, Princeton University	2010
M.S.,	Civil and Environmental Engineering, Texas Tech University	2005
B.S.,	Civil Engineering, Huazhong University of Science and Technology, China	2002

Professional Positions:

2023-Present	Professor, Dept. of Civil & Environmental Engineering, Princeton University Associated Faculty, C-PREE, Princeton School for Public and International Affairs Associated Faculty, Andlinger Center for Energy and Environment, Princeton University Associated Faculty, High Meadows Environmental Institute, Princeton University
2018-2023	Associate Professor, Dept. of Civil & Environmental Engineering, Princeton University
2012-2018	Assistant Professor, Dept. of Civil & Environmental Engineering, Princeton University
2010-2012	NOAA Climate and Global Change (C&GC) Postdoctoral Fellow, Dept. of Earth, Atmospheric & Planetary Sciences, MIT

Honors and Awards:

The Walter Orr Roberts Lectureship by American Meteorological Society (AMS) ("for pioneering physics-based weather risk analysis by integrating state-of-the-art weather and risk modeling to understand hurricane hazards under climate change")	2024
Walter L. Huber Civil Engineering Research Prize, American Society of Civil Engineers (ASCE)	2021
2020 Researcher of the Year Award, ASCE Central Jersey Branch	2020
Global Environmental Change Early Career Award, American Geophysical Union (AGU)	2020
Natural Hazards Early Career Award, American Geophysical Union (AGU)	2020
Faculty Early Career Development (CAREER) Award, National Science Foundation (NSF)	2016
Howard B. Wentz, Jr. Junior Faculty Award, Princeton University	2016
United States Frontiers of Engineering (FOE; Invited Speaker), National Academy of Engineering	2015
Science of Risk Prize, Lloyd's	2014
Best Paper Award, Society for Risk Analysis	2013
Natural Hazards Focus Group Award, American Geophysical Union (AGU)	2010
Climate and Global Change (C&GC) Postdoctoral Fellowship, NOAA	2010
Robert Hoffman *58 Scholar, Princeton University	2010
Harold W. Dodds Honorific Fellowship, Princeton University	2009
Founding Scholar, Princeton Energy and Climate Scholars Group	2008
Science, Technology and Environmental Policy (STEP) Fellowship, Princeton University	2007

Research:

- Research Interests: Hurricane Hazards (Wind, Storm Surge, Rainfall), Risk Analysis, Coastal Resilience, Climate Change Adaptation, Wind Engineering, Stochastic Modeling
- Publications: over 120 peer-reviewed papers, including over 20 published in high-impact interdisciplinary journals (*Science*, *PNAS*, *Nature Climate Change*, *Nature Sustainability, Nature Water, Nature Reviews Electrical Engineering, and Nature Communications*) and others published in a broad range of journals in science and engineering (*J. Atmos. Sci*., *J. Climate, J. Geophys. Res.-Ocean, J. Geophys. Res.-Atmos*., *Earth's Future*, *Monthly Weather Review, Weather and Forecasting, Natural Hazards, ASCE*

Journal of Structural Engineering, ASCE Natural Hazards Review, Probabilistic Engineering Mechanics, Journal of Wind Engineering and Industrial Aerodynamics, Wind and Structures, Frontiers in Built Environment, J Waterway Port Coast Ocean Eng, Reliability Engineering & System Safety, J. of Hydrology, J. of Hydrometeorology, Water Resources Research, Environmental Science & Technology, Stochastic Environmental Research and Risk Assessment, *Risk Analysis);*
7 book chapters, and numerous conference papers (26) and abstracts (>100)

- Google Scholar Citation: 9810, h-index: 53, i10-index: 100
- >80 invited talks at universities and conferences
- PI or Co-PI for a number of projects supported by NSF, DOE, NOAA, the Rockefeller Foundation, and the MacArthur Foundation; total external research funding received in the research group > $8 millions.
  - PI on NSF CAREER project "Understanding and Designing Structures for Hurricane Wind and Surge Hazards under Changing Climate Conditions." (09/01/2017 – 08/31/2022)
  - Lead PI on NSF project "Hazard SEES: An Integrated Approach to Risk Assessment and Management in Responding to Landfalling Hurricanes in a Changing Climate." (9/1/15-8/31/20)
  - Co-PI on NSF project "Large-scale CoPe: Megalopolitan Coastal Transformation Hub (MACH)." (9/1/2021-8/31/2026)
  - Co-PI on NSF project "PREEVENTS: Predicting Hurricane Risk along the United States East Coast in a Changing Climate." (06/01/2019-05/31/2023)
  - NOAA Climate Resilience Regional Challenge "Building a Climate- Ready NJ" – Flood Modeling (10/01/2024 – 09/30/2029)

Journal Papers (student or postdoc in Lin's group when the research was conducted**):**

1. Fu, Z.H., Xi, D., Xie, S.P., Zhou, W., **Lin, N**., Zhao, J., Wang, X. and Chan, J.C., 2025. Shifting hotspot of tropical cyclone clusters in a warming climate. *Nature Climate Change*, https://doi.org/10.1038/s41558-025-02397-9
2. Ganguli, P., **N. Lin** (2025). Intense humid heat ─ tropical cyclone compound hazards in eastern coastal India. *npj Nat. Hazards*. https://doi.org/10.1038/s44304-025-00103-5
3. Xu, L**, N. Lin**, A.T.D. Perera, H. V. Poor, Q. Guo, H. Sun, M. Oppenheimer (2025). Cross-sector energy system resilience and interdependence in a changing climate, *Joule*, 2025, 101967, ISSN 2542-4351, https://doi.org/10.1016/j.joule.2025.101967.
4. Gori, A., **N. Lin**, D. Chavas, M. Oppenheimer and S. Xian (2025). Sensitivity of tropical cyclone risk across the US to changes in storm climatology and socioeconomic growth. *Environ. Res. Lett.* DOI: 10.1088/1748-9326/add60d
5. Xi, D., H. Murakami, H., N. **Lin,** M. Oppenheimer (2025). Shifts of future tropical cyclone genesis date in north Atlantic and north Pacific basins: an ensemble modeling investigation. *npj Clim Atmos Sci*, 8, 182 (2025). https://doi.org/10.1038/s41612-025-01077-x
6. Feng, K., **N. Lin**, A. Gori, D. Xi, M. Ouyang, M. Oppenheimer (2025). Hurricane Ida's blackout-heatwave compound risk in a changing climate. *Nature Communications.* https://doi.org/10.1038/s41467-025-59737-8
7. Xu, L., H., Zeng, **N. Lin**, Y. Yang, Q. Guo, H.V. Poor (2025). Risk-aware electricity dispatch with large-scale distributed renewable integration under climate extremes. *Proceedings of the National Academy of Sciences*, https://doi.org/10.1073/pnas.2426620122
8. Xu, L., **N. Lin**, H.V. Poor, D. Xi, and A.T.D. Perera (2025). Quantifying cascading power outages during climate extremes considering renewable energy integration. *Nature Communications*
9. Feng, K., **N. Lin**, R. Kopp, S. Xian, M. Oppenheimer (2025). Reinforcement learning-based adaptive strategies for climate change adaptation: An application for coastal flood risk management. *Proceedings of the National Academy of Sciences*

10. Xu, L., H. Zeng, **N. Lin**, Y. Yang, Q. Guo and H. V. Poor (2024). Entropic Value-at-Risk Constrained Optimal Power Flow Considering Distribution Network Outages During Extreme Events. in *IEEE Transactions on Power Systems*, doi: 10.1109/TPWRS.2024.3498435.
11. Xu, L., **N. Lin,** D. Xi, K. Feng and H. V. Poor, Hazard Resistance-Based Spatiotemporal Risk Analysis for Distribution Network Outages During Hurricanes. *IEEE Transactions on Power Systems*, doi: 10.1109/TPWRS.2024.3469168.
12. Xi, D., **Lin, N**., Jing, R., Harr, P. and Oppenheimer, M. (2024). Uncertainties Inherent from Large-Scale Climate Projections in the Statistical Downscaling Projection of North Atlantic Tropical Cyclone Activity. *Journal of Climate,* https://doi.org/10.1175/JCLI-D-23-0475.1
13. Begmohammadi, A., Wirasaet, D., **Lin, N**., Dietrich, J. C., Bolster, D., & Kennedy, A. B. (2024). Subgrid modeling for compound flooding in coastal systems. *Coastal Engineering Journal*, 1–18. https://doi.org/10.1080/21664250.2024.2373482
14. Hintermaier, A.**, N. Lin** (2024). An Investigation of Climate Change Effects on Design Wind Speeds along the US East and Gulf Coasts. *ASCE J. of Structural Engineering*. https://doi.org/10.1061/JSENDH.STENG-1189
15. Lockwood, J., Oppenheimer, M., **Lin, N.**, and Jesse Gourevitch (2024), Socioeconomic distributional impacts of evaluating flood mitigation activities using equity-weighted benefit-cost analysis, *Environmental Research Letters*. DOI 10.1088/1748-9326/ad4ef8
16. Yin, J., Yang, Y., Yu, D. **Lin, N**. *et al.* (2024). Strategic storm flood evacuation planning for large coastal cities enables more effective transfer of elderly populations. *Nature Water*. https://doi.org/10.1038/s44221-024-00210-z
17. Lockwood, J. W., **Lin, N**., Gori, A., & Oppenheimer, M. (2024). Increasing flood hazard posed by tropical cyclone rapid intensification in a changing climate. *Geophysical Research Letters*, 51, e2023GL105624. https://doi.org/10.1029/2023GL105624
18. Begmohammadi, A., C. Y. Blackshaw, **N. Lin**, A. Gori, E. Wallace, K. Emanuel, J. P. Donnelly (2024). Integrating Climatological-Hydrodynamic Modeling and Paleohurricane Records to Assess Storm Surge Risk. *J. of Geophysical Research-Oceans.* https://doi.org/10.1029/2023JC020354
19. Lockwood, J., T. Loridan, **N. Lin**, M. Oppenheimer, N. Hannah (2024). A machine learning approach to model over ocean tropical cyclone precipitation. *Journal of Hydrometeorology*, 25, 207–221, https://doi.org/10.1175/JHM-D-23-0065.1.
20. Xu, L., Feng, K., **Lin, N.** et al. (2024). Resilience of renewable power systems under climate risks. *Nature Reviews Electrical Engineering*, 1, 53–66 (2024). https://doi.org/10.1038/s44287-023-00003-8
21. Li, Q., A Ramaswami, **N. Lin** (2023). Social inequality and recent experience influence adaptive preparation for Hurricane Ida (2021): insights from digital footprint data. *Environmental Research Letters,* p.124021.
22. Schneider, T., Behera, S., Boccaletti, G., Deser, C., Emanuel, K., Ferrari, R., Leung, L.R., **Lin, N**., Müller, T., Navarra, A. and Ndiaye10, O., 2023. Harnessing AI and Computing to Advance Climate Modeling and Prediction. *Nature Climate Change*. 13, 887–889 (2023). https://doi.org/10.1038/s41558-023-01769-3
23. Ceferino, L. and N. **Lin** (2023). Hurricane Risk of Solar Generation in the United States. *Natural Hazards Review*, 24(4), p.04023029. https://doi.org/10.1061/NHREFO.NHENG-17
24. Xi. D., **N. Lin**, N. Nadal-Caraballo, M.C. Yawn (2023). Assessing tropical cyclone rainfall hazard using engineered-synthetic-storms and a physics-based tropical cyclone rainfall model. *Journal of Applied Meteorology and Climatology*. https://doi.org/10.1175/JAMC-D-22-0131.1
25. Ceferino, L., **N. Lin** (2023). Hurricane Risk of Solar Generation in the United States, *ASCE Natural Hazards Review*. doi: https://doi.org/10.31224/2539
26. Gori, A., **N. Lin**, B. Schenkel, D. Chavas. North Atlantic tropical cyclone size and storm surge reconstructions from 1950-present. *J. Geophys. Res. Atmos.*

27. Xi, D. **N. Lin**, A. Gori (2023). Increasing joint and sequential tropical cyclone hazards in the US east and gulf coasts. *Nature Climate Change*. doi: 10.1038/s41558-023-01595-7
28. **Lin, N.,** Xi, D. (2023). Research Briefing: Likelihood of back-to-back tropical cyclone hazards is increasing. *Nature Climate Change*. https://doi.org/10.1038/s41558-023-01596-6
29. Gori, A., **N. Lin** (2022). Projecting compound flood hazard under climate change with physical models and joint probability methods. *Earth's Future.* doi: 10.1029/2022EF003097
30. Lockwood, J., **N. Lin**, M. Oppenheimer, C. Lai (2022). Using deep learning to predict hurricane storm surge and to assess the sensitivity of surge to storm characteristics. *J. Geophys. Res. Atmos.* doi: 10.1029/2022JD037617
31. Ceferino, L., **N. Lin**, D. Xi (2022). Bayesian Updating of Solar Panel Fragility Curves and Implications of Higher Panel Strength for Solar Generation Resilience. *Reliability Engineering & System Safety.* doi:10.1016/j.ress.2022.108896
32. Zhang, F. **N. Lin**, H. Kunreuther (2022). Benefits of and strategies to update premium rates in the U.S. national flood insurance program considering climate change. *Risk Analysis*. doi: 10.111/risa.14048
33. Schenkel, B., D. Chavas, **N. Lin**, T. Knutson, G. Vecchi, A. Brammer (2022). North Atlantic tropical cyclone outer size and structure remain unchanged by the late 21st century. *Journal of Climate*. doi: 10.1175/JCLI-D-22-0066.1
34. Xi, D. S. Wang, **N. Lin** (2022). Analyzing relationships between tropical cyclone intensity and rain rate over the ocean using numerical simulations. *Journal of Climate*. doi: 10.1175/JCLI-D-22-0141.1
35. Wang, S., **N. Lin**, A. Gori (2022). Investigation of tropical cyclone wind models with application to storm tide simulations. *J. Geophys. Res. Atmos*. doi:10.1029/2021JD036359
36. Feng, K., W. Shao, **N. Lin** (2022). Social-geographical pattern of rescue requests under Hurricane Harvey (2017). *Resilience Findings.* doi: 10.32866/001c.37903
37. Huang, M., Q. Wang, M. Liu, **N. Lin**, Y. Wang, R. Jing, J. Sun, H. Murakami, W. Lou (2022). Increasing typhoon impact and economic losses due to anthropogenic warming in Southeast China. *Scientific Reports*. doi: 10.1038/s41598-022-17323-8
38. Feng, K., **N. Lin** (2022). Modeling and analyzing the traffic flow during evacuation in Hurricane Irma (2017). *Transportation Research Part D: Transport and Environment*. doi: 10.1016/j.trd.2022.103412
39. Xi, D. and **N. Lin** (2022). Investigating the physical drivers for the increasing tropical cyclone rainfall hazard in the United States. *Geophysical Research Letters*. doi: 10.1029/2022GL099196
40. Feng, K. O. Min, **N. Lin** (2022). Tropical cyclone-blackout-heatwave compound hazard resilience in a changing climate. *Nature Communications*. doi: 10.1038/s41467-022-32018-4 (included in Editors' Highlights for the 50 best papers recently published in the area)
41. Mayo, T. and **N. Lin** (2022). Climate change impacts to the coastal flood hazard in the Northeastern United States. *Weather and Climate Extremes*. *https://doi.org/10.1016/j.wace.2022.100453*
42. Xi, D. and **N. Lin** (2022). Understanding uncertainties in tropical cyclone rainfall hazard modeling using synthetic storms. *J. of Hydrometeorology*. https://doi.org/10.1175/JHM-D-21-0208.1
43. Lockwood, J.W., M. Oppenheimer, **N. Lin**, R.E. Kopp, G.A. Vecchi and A. Gori (2022). Correlation between sea-level rise and aspects of future tropical cyclone activity in CMIP6 models. *Earth's Future*, https://doi.org/10.1029/2021EF002462
44. Gori, A., **N. Lin**, D. Xi, K. Emanuel (2022). Tropical cyclone climatology change greatly exacerbates US extreme rainfall-surge hazard. *Nature Climate Change*. 12, 171–178. https://doi.org/10.1038/s41558-021-01272-7
45. Ceferino, L., **N. Lin,** D. Xi (2022). Stochastic modeling of solar irradiance during hurricanes. *Stoch Environ Res Risk Assess*. https://doi.org/10.1007/s00477-021-02154-2

46. Xi, D. and **N. Lin** (2021). Sequential landfall of tropical cyclones in the United States: From historical records to climate projections. *Geophysical Research Letters*. doi: 10.1029/2021GL094826 (AGU Featured Research)
47. Jing, R., **N. Lin**, K. Emanuel, G. Vecchi, and T.R. Knutson (2021). A comparison of tropical cyclone projections in a high-resolution global climate model and from downscaling by statistical and statistical-deterministic methods. *Journal of Climate*, pp.1-48. doi: 10.1175/JCLI-D-21-0071.1
48. Huang, M., Q. Wang, Q. Li, R. Jing, **N. Lin**, L. Wang (2021). Typhoon wind hazard estimation by full-track simulation with various wind intensity models. *Journal of Wind Engineering and Industrial Aerodynamics*, doi: 10.1016/j.jweia.2021.104792.
49. Yin, J., **N. Lin**, Y. Yang, W. Pringle, J. Tan, J. Westerink, D. Yu (2021). Hazard assessment for typhoon-induced coastal flooding and inundation in Shanghai, China. *Journal of Geophysical Research: Oceans*. doi: 10.1029/2021JC017319
50. Feng, K and **N. Lin** (2021). Reconstructing and analyzing the traffic flow during evacuation in Hurricane Irma (2017). *Transportation Research Part D: Transport and Environment*. doi: 10.1016/j.trd.2021.102788
51. Kousky, C., H. Kunreuther, S. Xian, and **N. Lin** (2021). Adapting our flood risk policies to changing conditions. *Risk Analysis. doi:10.1111/risa.13692*
52. Gori, A., **N. Lin**, and D. Xi (2020). Tropical cyclone compound flood hazard assessment: from investigating drivers to quantifying extreme water levels. *Earth's Future.* doi: 10.1029/2020EF001660
53. Marsooli, R. and **N. Lin** (2020). Impacts of climate change on hurricane flood hazards in Jamaica Bay, New York. *Climatic Change.* doi: 10.1007/s10584-020-02932-x
54. Xi, D., **N. Lin**, J. Smith (2020). Evaluation of a physics-based tropical cyclone rainfall model for risk assessment. *J. of Hydrometeorology.* doi: 10.1175/JHM-D-20-0035.1
55. Yin, J., S. Jonkman, **N. Lin**, D. Yu, J. Aerts, R. Wilby, M. Pan, E. Wood, J. Bricker, Q. Ke, Z. Zeng, Q. Zhao, J. Ge, and J. Wang (2020). Flood risks in sinking delta cities: time for a re-evaluation? *Earth's Future*. doi: 10.1029/2020EF001614
56. Feng, K. **N. Lin,** S. Xian, M.V. Chester (2020). Can we evacuate from hurricanes with electric vehicles? *Transportation Research Part D: Transport and Environment.* doi: 10.1016/j.trd.2020.102458
57. Yu, D. J. Yin, R. Wilby, S. Lane, J. Aerts, **N. Lin**, M. Liu, H. Yuan, J. Chen, C. Prudhomme, M. Guan, A. Baruch, W. Johnson, X. Tang, L. Yu, S. Xu (2020). Disruption of emergency response to vulnerable populations during floods. *Nature Sustainability.* doi: 10.1038/s41893-020-0516-7
58. Gori, A., **N. Lin**, J. Smith (2020). Assessing compound flooding from landfalling tropical cyclones on the North Carolina coast. *Water Resources Research*. doi: 10.1029/2019WR026788
59. Jing, R. and **N. Lin** (2020). An environment-dependent probabilistic tropical cyclone model. *Journal of Advances in Modeling Earth Systems*. doi: 10.1029/2019MS001975
60. Xu, H., **N. Lin**, M. Huang, and W. Lou (2020). Design tropical cyclone wind speed considering climate change. *ASCE J. of Structural* Engineering, doi: 10.1061/(ASCE)ST.1943-541X.0002585.
61. Sajjad, M., J.C.L. Chan, **N. Lin** (2020). Incorporating natural habitats into coastal risk assessment frameworks. *Environmental Science & Policy*. doi: 10.1016/j.envsci.2020.01.004
62. Sajjad, M., **N. Lin**, J.C.L. Chan (2020). Spatial heterogeneities of current and future hurricane flood risk along the U.S. Atlantic and Gulf coasts. *Science of The Total Environment*. doi: 10.1016/j.scitotenv.2020.136704
63. Jing, R. and **N. Lin** (2019). Tropical cyclone intensity evolution modeled as a dependent hidden Markov process. *J. of Climate,* doi: 10.1175/JCLI-D-19-0027.1

64. Marsooli, R., **N. Lin,** K. Emanuel, and K. Feng (2019). Climate change exacerbates hurricane flood hazards along US Atlantic and Gulf Coasts in spatially varying patterns. *Nature Communications.* doi: 10.1038/s41467-019-11755-z

65. **Lin, N.** (2019). Tropical cyclones and heatwaves. *Nat. Clim. Change*. doi: 10.1038/s41558-019-0537-2

66. **Lin, N**., R. Marsooli, and B. Colle (2019). Storm surge return levels induced by the mid-to-late-twenty-first-century extratropical cyclones in the Northeastern United States. *Climatic Change*, doi: 10.1007/s10584-019-02431-8

67. Shao, W, K. Feng, and **N. Lin** (2019). Predicting support for flood mitigation based on flood insurance purchase behavior. *Environmental Research Letters*, doi: 10.1088/1748-9326/ab195a

68. Mayo, T. and **N. Lin** (2019). The Effect of the Surface Wind Field Representation in the Operational Storm Surge Model of the National Hurricane Center. *Atmosphere*, 10(4), p.193. doi: 10.3390/atmos10040193

69. Orton, P., **N. Lin**, V. Gornitz, B. Colle, J. Booth, K. Feng, M. Buchanan, M. Oppenheimer, L. Patrick (2019). New York City Panel on Climate Change 2019 Report Chapter 4: Coastal Flooding. *Annals of the New York Academy of Sciences*, doi: 10.1111/nyas.14011

70. Gornitz, V., M. Oppenheimer, R. Kopp, P. Orton, M. Buchanan, **N. Lin**, R. Horton (2019). New York City Panel on Climate Change 2019 Report Chapter 3: Sea Level Rise. *Annals of the New York Academy of Sciences*, doi: 10.1111/nyas.14006

71. Muis, S., **N. Lin**, M. Verlaan, H. C. Winsemius, P. J. Ward, J. C. J. H. Aerts (2019). Spatiotemporal patterns of extreme sea levels along the western North-Atlantic coasts. *Scientific Reports*. doi: 10.1038/s41598-019-40157-w

72. Yin, J., Q. Zhao, D. Yu, **N. Lin**, J. Kubanek, G. Ma, M. Liu, A. Pepe (2019). Long-term flood-hazard modeling for coastal areas using InSAR measurements and a hydrodynamic model: The case study of Lingang New City, Shanghai. *J. of Hydrology*. doi: 10.1016/j.jhydrol.2019.02.015

73. Schenkel, B., **N. Lin**, D. Chavas, G. Vecchi, M. Oppenheimer (2018), and A. Brammer. Lifetime evolution of tropical cyclone outer size. *J. Climate.* doi: 10.1175/JCLI-D-17-0630.1

74. Xian, S., K. Feng, **N. Lin**, R. Marsooli, D. Chavas, J. Chen, and A. Hatzikyriakou (2018). Rapid assessment of damaged homes in the Florida Keys after Hurricane Irma (2017). *Nat. Hazards Earth Syst. Sci.*, 18, 2041-2045. doi: 10.5194/nhess-18-2041-2018

75. Marsooli, R. and **N. Lin** (2018). Numerical modeling of historical storm tides and waves and their interactions along the U.S. East and Gulf Coasts. *J. Geophys. Res-Ocean*, doi: 10.1029/2017JC013434

76. Lu, P., **N. Lin**, K. Emanuel, D. Chavas, and J. Smith (2018). Assessing hurricane rainfall mechanisms using a physics-based model: Hurricanes Isabel (2003) and Irene (2011). *J. Atmos. Sci*., doi: 10.1175/JAS-D-17-0264.1

77. Huang, M, Q. Li, H. Xu, W. Lou, and **N. Lin** (2018). Non-stationary statistical modeling of extreme wind speed series with exposure correction. *Wind and Structures*, doi: 10.12989/was.2018.26.3.129

78. Hatzikyriakou, A. and **N. Lin** (2018). Assessing the vulnerability of structures and residential communities to storm surge: an analysis of flood impact during Hurricane Sandy. *Frontiers in Built Environment*, doi: 10.3389/fbuil.2018.00004

79. Xian, S., J. Yin, **N. Lin**, and M. Oppenheimer (2018). Influence of risk factors and past events on flood resilience in coastal megacities: comparative analysis of NYC and Shanghai. *Science of the Total Environment*, doi:10.1016/j.scitotenv.2017.07.229

80. Yin, J., D. Yu, **N. Lin**, and R. Wilby (2017). Evaluating the cascading impacts of sea level rise and coastal flooding on emergency response spatial accessibility in Lower Manhattan, New York City. *Journal of Hydrology*, doi: 10.1016/j.jhydrol.2017.10.067

81. Garnera, A.J., M.E. Mann, K.A. Emanuel, R.E. Kopp, **N. Lin**, R.B. Alley, B.P. Horton, R.M. DeConto, J.P. Donnelly, and D. Pollard (2017). Climate change impact on New York City's coastal flood hazard:

Increasing flood heights from the preindustrial to 2300 CE. *Proceedings of the National Academy of Sciences*, doi: 10.1073/pnas.1703568114

82. Schenkel, B., **N. Lin**, D. Chavas, M. Oppenheimer, and A. Brammer (2017) Evaluating outer tropical cyclone size in reanalysis datasets using QuikSCAT data. *J. Climate*, doi: 10.1175/JCLI-D-17-0122.1
83. Hatzikyriakou, A. and **N. Lin** (2017). Simulating storm surge waves for structural vulnerability estimation and flood hazard mapping. *Natural Hazards*, doi: 10.1007/s11069-017-3001-5
84. Tomiczek, T., A. Kennedy, Y. Zhang, M. Owensby, M. E. Hope, **N. Lin**, and A. Flores (2017). Hurricane damage classification methodology and fragility functions derived from Hurricane Sandy's effects in coastal New Jersey. *J Waterway Port Coast Ocean Eng*, doi: 10.1061/(ASCE)WW.1943-5460.0000409
85. Shao, W., S. Xian, **N. Lin**, and M. Small (2017). A sequential model to link contextual risk, perception and public support for flood adaptation policy. *Water Research*, doi: 10.1016/j.watres.2017.05.072
86. **Lin, N**., R. Jing, Y. Wang, E. Yonekura, J. Fan, and L. Xue (2017). A statistical investigation of the dependence of tropical cyclone intensity change on the surrounding environment. *Monthly Weather Review*, doi: 10.1175/MWR-D-16-0368.1
87. Xian, S., **N. Lin**, and H. Kunreuther (2017). Optimal house elevation for reducing flood-related losses. *Journal of Hydrology*, doi: 10.1016/j.jhydrol.2017.02.057
88. **Lin, N.** and E. Shullman (2017). Dealing with hurricane surge flooding in a changing environment: Part I. Risk assessment considering storm climatology change, sea level rise, and coastal development. *Stochastic Environmental Research and Risk Assessment*, doi:10.1007/s00477-016-1377-5
89. Lu, P., J.A. Smith and **N. Lin** (2017). Spatial characterization of flood magnitudes over the drainage network of the Delaware River basin. *Journal of Hydrometeorology*, doi: 10.1175/JHM-D-16-0071.1
90. Yin, J., **N. Lin**, and D. Yu (2016). Coupled modeling of storm surge and coastal inundation: A case study in New York City during Hurricane Sandy. *Water Resources Research*, doi: 10.1002/2016WR019102.
91. Shao, W., S. Xian, **N. Lin**, H. Kunreuther, N. Jackson, K. Goidel (2016). Understanding the effects of past flood events and perceived and estimated flood risks on individuals' voluntary flood insurance purchase behavior. *Water Research*, doi: 10.1016/j.watres.2016.11.021.
92. Hatzikyriakou, A. and **N. Lin** (2016). Impact of performance interdependencies on structural vulnerability: a systems perspective of storm surge risk to coastal residential communities. *Reliability Engineering & System Safety*, doi: 10.1016/j.ress.2016.10.011.
93. **Lin, N.**, R.E. Kopp, B.P. Horton, and J.P. Donnelly (2016). Hurricane Sandy's flood frequency increasing from year 1800 to 2100. *Proceedings of the National Academy of Sciences*, doi: 10.1073/pnas.1604386113.
94. Shao, W., S. Xian, B.D. Keim, K. Goidel, and **N. Lin** (2016). Understanding perceptions of changing hurricane strength along the US Gulf coast. *Int. J. Climatol*. doi:10.1002/joc.4805
95. Chavas, D. and **N. Lin** (2016). A model for the complete radial structure of the tropical cyclone wind field. Part II: wind field variability. *J. Atmos. Sci*. doi: 10.1175/JAS-D-15-0185.1
96. Chavas, D., **N. Lin**, W. Dong, and Y. Lin (2016). Observed tropical cyclone size revisited. *J. Climate*, doi: 10.1175/JCLI-D-15-0731.1
97. **Lin, N**. and K. Emanuel (2016). Grey swan tropical cyclones. *Nature Climate Change*, doi:10.1038/nclimate2777.
98. Hatzikyriakou, A., **N. Lin**, J. Gong, S. Xian, X. Hu, and A. Kennedy (2015). Component-based vulnerability analysis for residential structures subjected to storm surge impact from Hurricane Sandy. *Nat. Hazards Rev*., 10.1061/(ASCE)NH.1527-6996.0000205, 05015005.
99. Reed, A.J., M.E. Mann, K. A. Emanuel, **N. Lin**, B.P. Horton, A.C. Kemp, and J.P. Donnelly (2015). Increased threat of tropical cyclones and coastal flooding to New York City during the anthropogenic era. *Proceedings of the National Academy of Sciences*, doi: 10.1073/pnas.1513127112.

100. Xian, S., **N. Lin**, and A. Hatzikyriakou (2015). Storm surge damage to residential areas: a quantitative analysis for Hurricane Sandy in comparison with FEMA flood map. *Nat. Hazards*, doi:10.1007/s11069-015-1937-x.

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102. Orton, P., Vinogradov, S., Georgas, N., Blumberg, A., **Lin, N**., Gornitz, V., Little, C., Jacob, K. and Horton, R. (2015). New York City Panel on Climate Change 2015 Report Chapter 4: Dynamic Coastal Flood Modeling. *Annals of the New York Academy of Sciences*, 1336: 56–66. doi: 10.1111/nyas.12589

103. Lickley, M.J., **N. Lin** and H.D. Jacoby (2014). Analysis of coastal protection under rising flood risk, *Climate Risk Management*, doi: http://dx.doi.org/10.1016/j.crm.2015.01.001

104. **Lin, N**., P. Lane, K. A. Emanuel, R. M. Sullivan and J. P. Donnelly (2014). Heightened hurricane surge risk in northwest Florida revealed from climatological-hydrodynamic modeling and paleorecord reconstruction, *J. Geophys. Res.-Atmos*., 119, doi:10.1002/2014JD021584 (Highlighted in Research Spotlight of *EOS, Transactions American Geophysical Union*).

105. Aerts, J., W. J. W. Botzen, K. Emanuel, **N. Lin**, H. de Moel and E. Michel-Kerjan (2014). Evaluating flood resilience strategies for coastal mega-cities. *Science*, May 2014. doi:10.1126/science.1248222 (Lloyd's Science of Risk Prize).

106. Yeo, D., **N. Lin** and E. Simiu (2014). Estimation of hurricane wind speed probabilities: Application to New York City and other coastal locations. *ASCE Journal of Structural Engineering*, doi:10.1061/(ASCE)ST.1943-541X.0000892.

107. Aerts, J., **N. Lin**, H. Moel, K. A. Emanuel and W. Botzen (2013). Low probability flood-risk modeling for New York City. *Risk Analysis,* doi: 10.1111/risa.12008 (Best Paper Award).

108. Vanmarcke, E., **N. Lin** and S.C. Yau (2013). Quantitative risk analysis of damage to structures during wind storms: Some multi-scale and system-reliability effects. *Structure and Infrastructure Engineering - Maintenance, Management and Life-Cycle Design & Performance*, doi: 10.1080/15732479.2013.791325.

109. Huang, M. F., W. Lou, C. M. Chan, **N. Lin** and X. Pan (2013). Peak distributions and peak factors of wind-induced pressure processes on tall buildings. *J. Eng. Mech*., 10.1061/(ASCE)EM.1943-7889.0000616.

110. **Lin, N.**, K.A. Emanuel, M. Oppenheimer and E. Vanmarcke (2012). Physically based assessment of hurricane surge threat under climate change. *Nature Climate Change*, doi: 10.1038/NCLIMATE1389 (Online-attention score ranking the 1st among the 113 tracked articles of a similar age in *Nature Climate Change*).

111. **Lin, N.** and D. Chavas (2012). On hurricane parametric wind and applications in storm surge modeling. *J. Geophys. Res. Atmos*., 117, D09120, doi:10.1029/2011JD017126.

112. Lou, W., M. Huang, M. Zhang and **N. Lin** (2012). Experimental and zonal modeling of wind pressures on double-skin facades of a tall rectangular building. *Energy and Buildings*, 54, 179-191.

113. Klima, K., **N. Lin**, K.A. Emanuel, M.G. Morgan and I. Grossmann (2011). Hurricane modification and adaptation in Miami-Dade County, Florida. *Environmental Science and Technology*, 45, 636-642, doi: 10.1021/es202640p.

114. Yau, S.C., **N. Lin** and E. Vanmarcke (2011). Hurricane damage and loss estimation using an integrated vulnerability model. *Natural Hazards Review*, doi:10.1061/(ASCE)NH.1527-6996.0000035.

115. **Lin, N.**, K.A. Emanuel, J.A. Smith and E. Vanmarcke (2010). Risk assessment of hurricane storm surge for New York City. *J. Geophys. Res. Atmos*., 115, D18121, doi:10.1029/2009JD013630.

116. **Lin, N.**, J.A. Smith, G. Villarini, T. Marchok and M.L. Baeck (2010). Modeling extreme rainfall, winds, and surge from Hurricane Isabel (2003). *Weather and Forecasting*, 25, 1342–1361, doi: 10.1175/2010WAF2222349.1.

117. **Lin, N.** and E. Vanmarcke (2010). Windborne debris risk analysis: Part I. Introduction and methodology. *Wind and Structures*, 13(2) (Special Issue on Windborne Debris; invited), 191-206.

118. **Lin, N.**, E. Vanmarcke and S.C. Yau (2010). Windborne debris risk analysis: Part II. Application in structural vulnerability modeling. *Wind and Structures*, 13(2) (Special Issue on Windborne Debris; invited), 207-220.

119. **Lin, N.** and E. Vanmarcke (2008). Windborne debris risk assessment. *Probabilistic Engineering Mechanics*, 23(4) (Special Issue dedicated to Ove Ditlevsen; invited), 523-530.

120. **Lin, N.**, J.D. Holmes and C.W. Letchford (2007). Trajectories of windborne debris and applications to impact testing. *ASCE Journal of Structural Engineering*, 133(2), 2, 274-282.

121. **Lin, N.**, C.W. Letchford and J.D. Holmes (2006). Investigations of plate-type windborne debris, I. Experiments in wind tunnel and full-scale. *Journal of Wind Engineering and Industrial Aerodynamics*, 94, 51-76.

122. Holmes, J.D., C.W. Letchford and **N. Lin** (2006). Investigations of plate-type windborne debris, II. Computed trajectories. *Journal of Wind Engineering and Industrial Aerodynamics*, 94, 21-39.

123. **Lin, N.**, C.W. Letchford, Y. Tamura, B. Liang and O. Nakamura (2005). Characteristics of wind forces on tall buildings. *Journal of Wind Engineering and Industrial Aerodynamics*, 93, 217-242.

124. **Lin, N.**, B. Liang and Y. Tamura (2003). Experimental investigation on local wind force coefficients and power spectra of high-rise buildings. *Journal of Vibration Engineering,* 16(4).

Book Chapters:

1. Begmohammadi, A and **N. Lin** (2025). Tropical cyclones and storm surge. In *Tropical Cyclones and Associated Impacts*, Gabriele Villarini, Gabriel A Vecchi, Enrico Scoccimarro, editors, Elsevier. ISBN: 9780323953900
2. ASCE Task Group 2 Reliability-Based Performance Indicators for Structural Systems (2024). Effects of Climate Change on Life-Cycle Performance of Structures and Infrastructure Systems: Safety, Reliability, and Risk. Chapter 3: Impact of Climate Change on Infrastructure Performance (Contributing Author). https://doi.org/10.1061/9780784485804.ch3
3. Task Committee on Future Weather and Climate Extremes, Tye, M.R. and Giovannettone, J.P., 2021, October. Impacts of Future Weather and Climate Extremes on United States Infrastructure: Assessing and Prioritizing Adaptation Actions. Reston, VA: American Society of Civil Engineers. (Contributing Author)
4. Garner, A.J., R.E. Kopp, B.P. Horton, M.E. Mann, R. B. Alley, K. A. Emanuel, **N. Lin**, J.P. Donnelly, A. C. Kemp, R. M. DeConto and D. Pollard (2018). New York City's evolving flood risk from hurricanes and sea level rise. *Sea Level Rise*, 16(1), p.30.
5. **Lin, N**. (2015). An integrated approach to assess and manage hurricane risk in a changing climate. *(NAE) The Bridge* 45(4): 45–51.
6. **Lin, N.**, K. Emanuel and E. Vanmarcke (2014). Physically-based hurricane risk analysis. In *Extreme Natural Hazards, Disaster Risks and Societal Implications*, A. Ismail-Zadeh, J. Fucugaughi, A. Kijko, K. Takeuchi, and I. Zaliapin, editors, Cambridge University Press. ISBN: 9781107033863
7. Letchford, C., **N. Lin** and J. Holmes (2013). Windborne debris in horizontal winds and applications to impact testing. In *Advanced Structural Wind Engineering*, Y. Tamura and A. Kareem, editors, Springer. ISBN 978-4-431-54337-4

Design Projects (student or postdoc in Lin's group when the research was conducted**):**

1. Jones, R., P., Lewis, **N., Lin**, R., Marsooli, R., G. Nordenson, C. Seavitt (2018). *Head of Bay, Coastal Resilience, Jamaica Bay, New York*. https://cee.princeton.edu/sites/g/files/toruqf2216/files/head-bay-coastal-resilience-jamaica-bay_2018-12-5.pdf

2. Chapman, J., Nordenson, G., …T. Mayo, **N. Lin**, et al. (2014). *Structures of Coastal Resilience*. http://structuresofcoastalresilience.org

Consultant Projects

Assessment of climate science projections and their application in codes and standards, National Institute of Standards and Technology (NIST), November 2022-Present.
Tropical cyclone rainfall modeling and risk analysis for engineering design, U.S. Army Corps of Engineers - Engineer Research and Development Center -Environmental Laboratory. Nov. 2019- Nov. 2021
Extratropical and tropical cyclone storm surge modeling and risk analysis for engineering design, U.S. Army Corps of Engineers Research Participation Program. Aug. 2015- July. 2017

Licenses/Patents (student or postdoc in Lin's group when the research was conducted**):**

Lin, N. and R. Jing. Physics-based machine-learning approach for tropical cyclone risk analysis. Provisional Patent Application No. 62/881,753 (Princeton Ref. 20-3607-1), Priority Date: 08/01/2019

Invited Seminars at Universities and Research Institutes:

1. NYU Tandon, Center for Urban Science + Progress, April 28, 2025
2. Georgia Institute of Technology, School of Earth and Atmospheric Sciences. March 27, 2025
3. U.S. Association for Computational Mechanics (USACM) Energy & Earth System Technical Thrust Area, Monthly Webinar, November 12, 2024
4. University of Buffalo, Dept. of Civil, Structural, and Environmental Engineering, Oct. 18, 2024
5. Hong Kong Baptist University, Dept. of Geography, Distinguished Geography Seminar, June 29, 2023
6. IPSL Sciences Laboratory of Climate and the Environment (LSCE), Saint-Aubin, France, June 19, 2023
7. Sorbonne Université, Laboratoire atmosphères et observations spatiales | LATMOS, Paris, June 14, 2023
8. Stony Brook University, School of Marine and Atmospheric Sciences, April 19, 2023
9. Texas A& M University, Dept. of Civil and Environmental Engineering, Oct. 17, 2022
10. The Pennsylvania State University, Dept. of Civil and Environmental Engineering, April 13, 2022
11. Case Western Reserve University, Dept. of Civil and Environmental Engineering, April 2, 2021
12. Columbia University, Civil Engineering and Engineering Mechanics, Feb. 15, 2021
13. University of Illinois at Urbana-Champaign, Dept. of Civil and Environmental Engineering, Mar. 25, 2019
14. Stanford University, Dept. of Earth System Science, January 23, 2019
15. Rice University, Dept. of Civil and Environmental Engineering, Houston, TX, January 18, 2019
16. East China Normal University, School of Geographic Sciences, Shanghai, China, June 11, 2018
17. NASA Goddard Space Flight Center, Greenbelt, Maryland, May 21, 2018
18. NOAA/Geophysical Fluid Dynamics Laboratory (GFDL), Princeton, NJ, June 22, 2017
19. Lehigh University, Dept. of Civil and Environmental Engineering, Bethlehem, PA, Nov. 1, 2016
20. University of Notre Dame, Dept. of Civil and Environmental Engineering and Earth Sciences, Sep. 27, 2016
21. Columbia University, Tropical Cyclone Risk Modeling Workshop, May 9, 2016.
22. National Center for Atmospheric Research (NCAR), Boulder, CO, May 29, 2015
23. Princeton, The David Bradford Seminars in Science, Technology and Environmental Policy, Sep. 22, 2014
24. Catalan Institute of Climate Sciences, Barcelona, Spain, July 15, 2014
25. Nanyang Technological University, Earth Observatory of Singapore, Singapore, June 24, 2014

26. Rutgers University, Institute of Marine and Coastal Science, May 5, 2014
27. Columbia University, Dept. of Applied Physics and Applied Mathematics, Mar. 28, 2013
28. University of Pennsylvania, Dept. of Earth and Environmental Science, Philadelphia, PA, Mar. 15, 2013
29. Rensselaer Polytechnic Institute, Civil and Environmental Engineering, Troy, NY, April 4, 2012
30. Harvard University, School of Engineering and Applied Sciences, Cambridge, MA, Mar. 19, 2012
31. MIT, Dept. of Civil and Environmental Engineering, Cambridge, MA, Mar. 8, 2012
32. Cornell University, Dept. of Civil and Environmental Engineering, Ithaca, New York, Feb. 27, 2012
33. University of Michigan, Civil and Environmental Engineering, Ann Arbor, MI, Feb. 13, 2012
34. University of Washington, Dept. of Atmospheric Sciences, Seattle, WA, Feb. 8, 2012
35. Geophysical Fluid Dynamics Laboratory (GFDL), Princeton, NJ, Jan. 25, 2012
36. Princeton University, Civil and Environmental Engineering, Princeton, NJ, Jan. 24, 2012
37. Cornell University, Dept. of Earth and Atmospheric Sciences, Ithaca, New York, Dec. 1, 2011
38. AIR Worldwide Corporation, Boston, MA, Nov. 11, 2011
39. University of Delaware, Dept. of Civil and Environmental Engineering, Newark, DE, Apr. 8, 2011
40. Atmospheric and Environmental Research, Lexington, MA, Sept. 21, 2010
41. MIT, Dept. of Earth, Atmospheric, and Planetary Sciences, Cambridge, MA, Oct. 20, 2010
42. University of Notre Dame, Dept. of Civil and Environmental Engineering, IN, Aug. 24, 2010
43. Princeton University, Robert Hoffman *58 Scholars Forum, Princeton, NJ, Apr. 27, 2010
44. Rice University, Dept. of Civil and Environmental Engineering, Houston, TX, Feb. 15, 2010
45. Columbia University, NASA Goddard Institute for Space Studies, New York, NY, Nov. 24, 2009
46. Stanford University, Dept. of Civil and Environmental Engineering, Stanford, CA, Nov. 11, 2009
47. University of California, Berkeley, Dept. of Civil and Environmental Engineering, CA, Dec. 18, 2008

Invited Talks at Conferences:

1. AMS Annual Meeting: Awardee Presentation at Presidential Session, January 15, 2025
2. AMS Annual Meeting: Walter Orr Roberts Lecture, January 15, 2025
3. AGU Fall Meeting: H12C - Advancing Flood Characterization, Modeling, and Communication, Dec. 9, 2024
4. AGU Fall Meeting: GC24H - Multisector Dynamics: Adapting Energy Systems to Climate Change, Dec. 10, 2024
5. Workshop on TROPIcal Cyclones in ANthropocene: physics, simulations & Attribution (TROPICANA). Saint-Aubin, France, June 24, 2024 (**Keynote**)
6. 2024 Symposium on Hurricane Risk in a Changing Climate, Honolulu, Hawai'I, June 5, 2024
7. The 2nd International Meet on Applied Science, Engineering and Technology (ASETMEET2023), August 14-16, 2023, Vancouver, Canada (**Plenary**)
8. The Trends in Environmental Science and Engineering (RTESE'23), Carleton University, Ottawa, Canada, June 4-6, 2023 (**Keynote**)
9. Climate Science in Service of Climate Solutions, Stanford University, April 14, 2023
10. Infrastructure & Civil Engineering Conference (InfraCivilCon2023), Rome, Italy, March 27-29, 2023 (**Keynote**)
11. The 2nd Climate and Water Forum (CWF), Hong Kong University of Science and Technology (HKUST), May 19, 2022

12. AGU Fall Meetings, Session "NH33B: Risk, Impact, and Communication of Compound Climate Extremes", Virtual, Dec. 13-17, 2021
13. Global Summit on Civil, Architecture, and Environmental Engineering (GSCAEE-2021), Virtual, July 21, 2021 (**Keynote**)
14. US Climate Variability and Predictability Program (CLIVAR) Predictability, Predictions, and Applications Interface Panel (PPAI) Annuel Meeting, Virtual, July 21, 2020
15. Princeton Andlinger Center for Energy and the Environment E-ffiliates retreat: "Resilience: Coasts and Beyond", Virtual, June 9, 2020
16. XXVII IUGG General Assembly, Session "Georisk Reduction: Science, Resources, and Governmental Action" Montréal, Canada, July 8-18, 2019
17. AGU Fall Meeting, Session "Coastal Hydrology: fluid flow, transport, and ecosystem responses from wave to climate scales", Washington, D.C., Dec. 10-14, 2018
18. Biennial meeting of the Consortium for the Advancement of Hydrological Sciences (CUAHSI), Session: Water and the Changing Climate. Shepherdstown, West Virginia, July 29-Aug 2, 2018.
19. AGU Fall Meeting, GC012: Characterizing and managing risks of weather and climate extreme events in a changing world, New Orleans, LA, Dec. 11-15, 2017
20. SIAM Conference on Mathematics of Planet Earth, Philadelphia, PA, Sep. 30, 2016
21. Symposium on Reliability of Engineering System (SRES'2015), Hangzhou, China, Oct. 17, 2015 (**Keynote**)
22. US Frontiers of Engineering Symposium of the National Academy of Engineering, Irvine, CA, Sep. 11, 2015
23. Mini-symposium "Advances in Computational Techniques for Coastal Ocean Modeling" at the SIAM Conference on Computational Science and Engineering, Salt Lake City, Utah, March 17, 2015
24. AGU Fall Meeting, GC33D: Magnitudes and Mechanisms of Ice Sheet Melt, Sea-Level Changes, and Coastal Inundation: Past and Future II, San Francisco, CA, Dec. 11, 2013
25. NPCC Coastal Workshop, NASA Goddard Institute for Space Studies, New York, NY, Dec. 6, 2013
26. Hurricane Ike: 5 Years Later Conference, Rice University, TX, Sep. 25, 2013 (**Keynote**)
27. Davos Atmosphere and Cryosphere Assembly DACA-13, Davos, Switzerland, July 12, 2013.
28. Mini-symposium "Multiple Hazards Associated with Tropical Cyclones and Other Wind Storms" at the11th International Conference on Structural Safety & Reliability, Columbia University, June 16-20, 2013
29. 4th International Summit on Hurricanes and Climate Change, Kos, Greece, June 13, 2013
30. The First IUGG GRC Conference on "Extreme Natural Hazards and Their Impacts", Chapman University, Orange, CA, Dec. 8-11, 2012
31. AGU Fall Meeting, NH23C: Coastal Inundation for Present and Future Climates, Dec. 3-7, 2012
32. AGU Fall Meeting, U14A: Quantitative Modeling of Social and Environmental Systems, Dec. 3-7, 2012
33. AGU Fall Meeting, OS24C: Living on the Edge: Societies on the Frontline of Coastal Change, 2012
34. NOAA Climate & Global Change Summer Institute, Steamboat Springs, CO, July 10, 2012
35. The 3rd International Summit on Hurricanes and Climate Change, Rhodes, Greece, July 2, 2011
36. AGU Fall Meeting, Natural Hazards Focus Group, San Francisco, CA, Dec. 13, 2010
37. GFDL/Princeton Workshop on Fluid Dynamics & Global Environment, Princeton, NJ, May 27, 2009

Conference Papers in Published Proceedings (student or postdoc in Lin' group**)**

1. Gori, A. and **Lin, N.** (2021). Comparing statistical and physical models for compound hazard assessment: the case of compound flooding during tropical cyclones. Geo-Extreme 2021, 242-253, doi:10.1061/9780784483701.024
2. Xi, D., **N. Lin**, and N. C. Nadal-Caraballo (2021). A Joint-Probability Model for Tropical Cyclone Rainfall Hazard Assessment. Geo-Extreme 2021. 1-10.
3. Jing, R. and **N. Lin** (2019). An environment-dependent probabilistic tropical cyclone model. *Proceedings of the 15th International Conference on Wind Engineering*, Beijing, China, September 1-6, 2019
4. Feng, K., S. Xian, and **N. Lin** (2019). Tuning deep flooding risk with adaptive strategy: An application for NYC. *Proceedings of the 13th International Conference on Applications of Statistics and Probability in Civil Engineering* (*ICASP13*), Seoul, South Korea, May 26-30, 2019
5. Feng, K. and **N. Lin** (2019). Simulation of Hurricane Irma Evacuation Process. *Proceedings of the 13th International Conference on Applications of Statistics and Probability in Civil Engineering* (*ICASP13*), Seoul, South Korea, May 26-30, 2019
6. Hatzikyriakou, A. and **N. Lin** (2016). Simulating storm surge inundation for structural vulnerability estimation and prediction. *Proceedings of the 4th American Association for Wind Engineering Workshop*, Miami, Florida, August 14-16, 2016
7. Gong, J., M. Guo, Z. Zhou, **N. Lin**, A. Kennedy (2016). Fusion of Geo-Tagged Post-Storm Damage Photos with Mobile LiDAR Data for Storm Surge Height Measurement. *Proceedings of Construction Research Congress*, San Juan, Puerto Rico, May 31-June 2, 2016
8. Vanmarcke, E. and **N. Lin** (2015). Multi-hazard geo-risk assessment of long coastal structures. *Proceedings of Symposium on Reliability of Engineering System* (SRES'2015), 57-70, Hangzhou, China, Oct. 15-17, 2015.
9. Shullman, E. and **N. Lin** (2015). Economic evaluation of hurricane flood mitigation strategies: methodology development and case study for New York City. *Proceedings of Symposium on Reliability of Engineering System* (SRES'2015), 297-298, Hangzhou, China, Oct. 15-17, 2015
10. Hatzikyriakou, A. and **N. Lin** (2015). Impact of damage correlation due to Performance interaction on structural vulnerability. *Proceedings of Symposium on Reliability of Engineering System* (SRES'2015), 291-292, Hangzhou, China, Oct. 15-17, 2015
11. **Lin, N.**, K. Emanuel and E. Vanmarcke (2013). Hurricane risk analysis: A review on the physically-based approach. *Proceedings of 11th International Conference on Structural Safety & Reliability (ICOSSAR 2013)*, Columbia University, New York, June 16-20, 2013.
12. Owensby, M., **N. Lin** and A. Kennedy (2013). An assessment and analysis of Hurricane Sandy damage in Ortley Beach, New Jersey. *Proceedings of 11th International Conference on Structural Safety & Reliability (ICOSSAR 2013)*, Columbia University, New York, June 16-20, 2013.
13. Gong, J. and **N. Lin** (2013). Post-Sandy damage and vulnerability assessment with 3D geospatial sensing methods. *Proceedings of 11th International Conference on Structural Safety & Reliability (ICOSSAR 2013)*, Columbia University, New York, June 16-20, 2013.
14. Yeo, D., **N. Lin** and E. Simiu (2013). Multiple wind hazards in hurricane-prone regions and basic wind speeds specified by the ASCE 7 standard for New York City." *Proceedings of 11th International Conference on Structural Safety & Reliability (ICOSSAR 2013)*, Columbia University, New York, June 16-20, 2013.
15. **Lin, N.** and K. Emanuel (2011). Hurricane storm surge risk and impact of climate change. *Proceedings of the 13th International Conference on Wind Engineering (13ICWE)*, Amsterdam, Netherlands, July 10-15, 2011.
16. Vanmarcke, E. and **N. Lin** (2011). Quantitative risk analysis of damage to structures during windstorms: Random field and system reliability aspects. *Proceedings of International Conference on Vulnerability and Risk Analysis and Management (ICVRAM) and ISUMA 2011 Fifth International Symposium on Uncertainty Modeling and Analysis*, Hyattsville, Maryland, April 11-13, 2011, doi:10.1061/41170(400)2.

17. Vanmarcke, E., **N. Lin** and S.C. Yau (2010). Quantitative risk analysis of damage to structures during windstorms: Some multi-scale and system-reliability effects. *Proceedings of International Symposium on Reliability Engineering and Risk Management (ISRERM2010)*, Shanghai, China, September 23-26, 2010.
18. **Lin, N.**, E. Vanmarcke and T. Marchok (2008). Landfalling hurricane simulation and wind damage assessment. *Proceedings of the 1st American Association for Wind Engineering Workshop*, Vail, Colorado, USA, August 21-22, 2008.
19. **Lin, N.** and E. Vanmarcke (2007). A windborne debris risk model. *Proceedings of the 12th International Conference on Wind Engineering (ICWE12)*, Cairns, Australia, July 1-6, 2007.
20. **Lin, N.**, C.W. Letchford and J.D. Holmes (2005). Experimental investigation of trajectory of windborne debris with applications to debris impact criteria. *Proceedings of the 10th Americas Conference on Wind Engineering (10ACWE)*, Baton Rouge, Louisiana, USA, June 1-4, 2005.
21. **Lin, N.**, C.W. Letchford and G. Taylor (2005). Investigation of the flight mechanics of 1D (rod-like) debris. *Proceedings of the 4th European & African Conference on Wind Engineering (EACWE2005)*, Prague, Czech Republic, July 11–15, 2005.
22. Holmes, J.D., C.W. Letchford and **N. Lin** (2005). Trajectories of windborne debris of the plate-type. *Proceedings of the 10th Americas Conference on Wind Engineering (10ACWE)*, Baton Rouge, Louisiana, USA, June 1-4, 2005.
23. **Lin, N.**, C.W. Letchford and J.D. Holmes (2004). Aerodynamics of 2D windborne debris in wind-tunnel and full-scale tests. *Proceedings of the 6th UK Conference on Wind Engineering*, Cranfield University, United Kingdom, September 15-17, 2004.
24. **Lin, N.**, C.W. Letchford and J.D. Holmes (2004). Wind tunnel and full-scale tests of 2D windborne debris. *Proceedings of the International Conference on Storms and the Annual National Conferences of the Australian Meteorological and Oceanographic Society (AMOS) and the Meteorological Society of New Zealand (MSNZ)*, Brisbane, Australia, July 5-9, 2004.
25. **Lin, N.**, C.W. Letchford and J.D. Holmes (2004). Investigation of 2D windborne debris in wind-tunnel and full-scale tests. *Proceedings of the 11th Australian Wind Engineering Society Workshop*, Darwin, Australia, June 28-30, 2004.
26. **Lin, N.**, O. Nakamura, B. Liang and Y. Tamura (2003). Local wind forces acting on tall buildings. *Proceedings of the 11th International Conference on Wind Engineering (ICWE11)*, Lubbock, Texas, June 2-5, 2003.

Conference Abstracts (student or postdoc in Lin' group**)**

1. Xu, L, **N. Lin** (2025). "Quantifying Renewable Power System Resilience Under Climate Extremes." IEEE PES Grid EDGE Technologies Conference & Exposition, Jan. 21, 2025.
2. Xi, D., **N. Lin**, H. Murakami, and M. Oppenheimer (2024). "Shifts of Future Tropical Cyclone Genesis Date in North Atlantic and North Pacific Basins." AGU Fall Meeting, Dec.9-13, 2024
3. Begmohammadi, A., **N. Lin**, D. Xi, C. Blackshaw (2024). "Future Coastal Flood Hazards from Tropical Cyclones in the Northeastern United States." AGU Fall Meeting, Dec.9-13, 2024.
4. Blackshaw, C., **N. Lin** (2024). "Investigating the Interaction of Tropical Cyclone-Heatwave Compound Hazards in Urban Canopy Models." AGU Fall Meeting, Dec.9-13, 2024.
5. Xu, L., **N. Lin** (2024). "Resilience of Renewable-Dominated Energy Internet Under Climate Risks." IEEE PES General Meeting, Jul. 22, 2024.
6. Gori, A., **Lin, N.**, Chavas, D., and Oppenheimer, M. (2023). "Projecting shifts in tropical cyclone damages across the US due to climate change and economic growth." AGU Fall Meeting, Dec. 11-15, 2023 (invited).

7. Xi, D., **N. Lin**, H. Murakami, and M. Oppenheimer (2023). "Joint hazards from tropical cyclones and heatwave in the United States: current joint-climatology, future changes, and hazard assessment." AGU Fall Meeting, Dec.11-15, 2023
8. Begmohammadi, A., D. Wirasaet, **N. Lin**, A, Kennedy, and C. Dietrich (2023). "Enhancing compound flood prediction in coastal region through subgrid model." AGU Fall Meeting, Dec. 10-15, 2023.
9. Blackshaw, C., A. Begmohammadi, **N. Lin**, A. Gori, E. Wallace, K. Emanuel, J. Donnelly (2023). "Integrating climatological-hydrodynamic modeling and paleohurricane records to assess long-term storm surge risk." AGU Fall Meeting, Dec. 10-15, 2023.
10. Feng, K., **N. Lin**, and M. Oppenheimer (2023). "Adaptive strategies for flooding risk management under climate change: A reinforcement learning application for NYC" SRA Annual Meeting, Dec. 13-17, 2023
11. Xu, L., **N. Lin** (2023) "Risk Analysis and Resilience Enhancement of Renewable Power Systems Under Climate Risks." IEEE PES ISGT-LA, Nov. 8, 2023.
12. Xu, L., **N. Lin** (2023) "Resilience-Oriented Robust Optimization for Smart Grids Under Extreme Events." INFORMS Annual Meeting, Oct. 16, 2023.
13. Feng, K., **N. Lin**, and M. Oppenheimer (2023). "Adaptive strategies for flooding risk management under climate change: A reinforcement learning application for NYC" INFORMS Annual Meeting, Oct. 13-17, 2023
14. Gori, A., Xi, D., Lockwood, J., Feng, K., and **Lin, N.** (2023). "Tropical cyclones in a changing climate: climatology, hazards, and impacts". Severe Storm Prediction, Education, and Evacuation from Disasters (SSPEED) 11th Conference, Oct. 12-13, 2023 (invited).
15. Blackshaw, C., A. Begohammadi, and **N. Lin** (2023). "Integrating ADCIRC modeling and paleohurricane records to assess long-term storm surge risk." ADCIRC User Meeting, Jun. 7-9, 2023.
16. Gori, A., Wang, S., **Lin, N**., Chavas, D., and Schenkel, B. (2023). "Implementing a physics-based, complete hurricane wind model in ADCIRC to reconstruct historical tropical cyclone storm surges". ADCIRC Users Group Meeting, Jun. 8-9, 2023.
17. Xi, D., **N. Lin** (2023) "Statistical Downscaling Projections of North Atlantic Tropical Cyclone Activity: Uncertainties Inherent from Large-Scale Climate Simulations." 10th Northeast Tropical Workshop, June 5-7, Albany NY
18. Xi, D., **N. Lin** (2023). "Downscaling Atlantic Tropical Cyclones Using a Statistical Synthetic Storm Model." AMS Annual Meeting, January 8-12, Denver.
19. Gori, A., N. **Lin**, B. Schenkel & D. Chavas (2022). "Leveraging reanalysis data and physics-based modeling to reconstruct tropical cyclone sizes and storm surges from 1950-Present." AGU Fall Meeting, Chicago, IL.
20. Xi, D., **N. Lin** (2022). "Investigating the Physical Drivers for the Increasing Tropical Cyclone Hazard in the United States." AGU Fall Meeting 2022, Chicago, 2022
21. Li, Q., A. Ramaswami, and **N. Lin** (2022). "Exploring Hurricane Preparedness Through Human Mobility Data: Insights from Ida." AGU Fall Meeting 2022. Chicago, 2022.
22. Gori, A. & **Lin, N.** (2022). "A Joint Probability Approach for Delineating Compound Flood Hazard under Current and Future Climate Conditions." 102nd AMS Annual Meeting, Houston, TX.
23. Gori, A., **Lin, N.**, Xi, D. & Emanuel, K. (2022). "Understanding the role of sea level rise and changing storm climatology on US rainfall-surge hazard.'' 10th Severe Storm Prediction, Education, and Evacuation from Disasters Conference, Houston, TX.
24. Feng, K., **N. Lin**, A. Gori, D. Xi, M. Ouyang, and M. Oppenheimer (2022). "Assessing the Current and Future Probability of Hurricane Ida's Blackout- Heatwave Compound Hazard." The Engineering Mechanics Institute Conference (EMI 2022)

25. Feng, K., **N. Lin**, S. Xian (2022). "Tuning deep flooding risk with adaptive strategy: An application for NYC". ICOSSAR 2022
26. Feng, K., M. Ouyang, **N. Lin** (2022). "Hurricane-blackout-heatwave compound hazard and risk mitigation in a changing climate." ICOSSAR 2022
27. Feng, K., M. Ouyang, **N. Lin** (2022). "Hurricane - blackout - heatwave compound hazard and mitigation in a changing climate." Symposium on Hurricane Risk in a Changing Climate 2022
28. Xi, D., **N. Lin**, and A. Gori (2021). "Sequential Landfall of Tropical Cyclones in the United States." AGU Fall Meeting 2021. AGU, 2021.
29. Feng, K., **N. Lin**, and M. Ouyang (2021). "Hurricane-blackout-heatwave compound hazard along US Atlantic and Gulf Coasts in a changing climate." Society for Risk Analysis (SRA) Annual Meeting, Dec. 5-9, 2021
30. Gori, A., **N. Lin**, D. Xi, and K. Emanuel (2021). "Climate change increases the frequency of joint rainfall-surge extremes along the US coastline." 2021 Fall Meeting, AGU, New Orleans, LA. (invited talk by Gori)
31. **Lin. N.**, K. Feng, M. Ouyang (2021). "Hurricane-blackout-heatwave compound hazard risk." 2021 Fall Meeting, AGU, New Orleans, LA.
32. Gori, A., **N. Lin**, and D. Xi (2021). "Quantifying shifts in joint rainfall-surge hazard due to future climate warming." 6th Annual NRC PFHA Research Workshop.
33. Xi, D. and **N. Lin** (2021), "Understanding Tropical Cyclone Rainfall Hazard Uncertainties Using Synthetic Storms and Physics-Based Rainfall Model." AMS Annual Meeting. January 2021
34. Ceferino L., **N. Lin**, and D. Xi (2020). "Resilience of Solar Energy Generation to Hurricanes." at Society for Risk Analysis (SRA) 2020 Annual Meeting, Dec. 13-17, 2020
35. Gori, A., **N. Lin**, and D. Xi. (2020). "Physics-based compound flood risk assessment in a warming climate." AGU Fall Meeting, Dec. 1-17, 2020.
36. Xi, D. and **N. Lin**, "Evaluation of a Physics-Based Tropical Cyclone Rainfall Model and Its Application for Risk Assessment." Boston, MA., AMS Annual Meeting. January 2020
37. Xi, D. and **N. Lin** (2020) "Influence of ENSO on Landfalling Tropical Cyclone Hazards in Coastal United States." AGU Fall Meeting, Dec 1-17, 2020
38. Ceferino L., **N. Lin**, and D. Xi (2020). "Solar Generation for Disaster Resilience to Hurricanes." AGU Fall Meeting, Dec. 1-17, 2020
39. **Lin, N.,** R. Jing, K. Emanuel, G. Vecchi, T. Knutson (2020). "Comparison of Tropical Cyclone Projection in a High-Resolution Global Climate Model and Downscaled by Statistical and Statistical-deterministic Methods." AGU Fall Meeting, Dec. 1-17, 2020
40. Feng, K., W. Shao, **N. Lin** (2020). "Hurricane Harvey (2017) revealed local social vulnerability and risk perception of hurricanes." AGU Fall Meeting, Dec. 1-17, 2020
41. Jing, R, **N. Lin**, and Y. Zhang (2019). "DeepRI: End-to-end prediction of tropical cyclone rapid intensification from climate data." NeurIPSw: Tackling Climate Change with Machine Learning. British Columbia, Canada, Dec. 14, 2019
42. Feng, K. and **N. Lin** (2019). "Tuning deep flooding risk with adaptive strategy: An application for NYC." The Institute for Operations Research and the Management Sciences (INFORMS) Annual Meeting. Seattle, WA, Oct. 20-23, 2019
43. Gori, A., **N. Lin**, D. Xi and J. Smith (2019). "Investigating Compounding Potential between Rainfall, Surge, and River Discharge for Landfalling Hurricanes along the North Carolina Coast." AGU Fall Meeting, San Francisco, CA D.C., Dec. 9-13, 2019
44. Feng, K., M. Ouyang, **N. Lin** (2019). "Modeling the impact of hurricane induced power outage in a changing climate." AGU Fall Meeting, San Francisco, CA D.C., Dec. 9-13, 2019

45. Muis, S., N. Bloemendaal, **N. Lin**, I. Pelupessy, M. Verlaan, P. Ward, M. Chertova (2019). "How to advance the global modelling of tropical cyclone-generated storm surges?" AGU Fall Meeting, San Francisco, CA D.C., Dec. 9-13, 2019
46. Jing, R. and N. Lin (2019). "An environment-dependent probabilistic tropical cyclone model." XXVII IUGG General Assembly, Montréal, Canada, July 8-18, 2019
47. Lin, N and R. Marsooli (2018). "Impact of sea level rise and tropical cyclone climatology change on 21st century coastal flood hazards along the U.S. East and Gulf coasts." AGU Fall Meeting, Washington, D.C., Dec. 10-14, 2018
48. Jing, R. and N. Lin (2018). "An environment-dependent probabilistic tropical cyclone model." AGU Fall Meeting, Washington, D.C., Dec. 10-14, 2018
49. Marsooli, R. and N. Lin (2018). "Changing coastal flood hazards in Jamaica Bay, New York, induced by the mid and late 21st century sea level and tropical cyclone climatology." AGU Fall Meeting, Washington, D.C., Dec. 10-14, 2018
50. He, X. K. Feng, J. Hall, Y Wada, P. Burek, **N. Lin**, E. Wood, and J. Sheffield (2018). "Identifying robust development pathways to manage the groundwater-food-energy trilemma in California through penetration of renewable energy generation" AGU Fall Meeting, Washington, D.C., Dec. 10-14, 2018
51. Oppenheimer, M., V. Gornitz, R. Kopp, P. Orton, M. Buchanan, **N. Lin**, R. Horton, D. Bader, C. Rosenzweig. "Challenges of Adapting to Upper-End Sea Level Rise and Increased Coastal Flooding: the Case of New York City" AGU Fall Meeting, Washington, D.C., Dec. 10-14, 2018
52. Hatzikyriakou, A. and **N. Lin** (2018). "Multi-hazard analysis of tropical cyclone return periods." Forensic Engineering 8th Congress in Austin, Texas on Nov. 29 – Dec. 2, 2018
53. **Lin, N**., R. Jing, and D. Xi (2018). "An environment-dependent hurricane climatology model." ASCE Engineering Mechanics Institute Conference, MIT, Cambridge, MA, May 28-June 1, 2018.
54. Feng, K. and **N. Lin** (2018). "Simulating and managing hurricane evacuation process: the case of Hurricane Irma (2017)." ASCE Engineering Mechanics Institute Conference, MIT, Cambridge, MA, May 28-June 1, 2018.
55. Jing, R., and **N. Lin** (2018). "A Markov environment-dependent hurricane intensity model and its application in operational forecasting." 33rd Conference on Hurricanes and Tropical Meteorology, Ponte Vedra, FL, April 16-20, 2018
56. Schenkel, B., **N. Lin**, Chavas, G. Vecchi, T. Knutson, and M. Oppenheimer (2018). "Will outer tropical cyclone size change due to anthropogenic warming?" 33rd Conference on Hurricanes and Tropical Meteorology, Ponte Vedra, FL, April 16-20, 2018
57. Marsooli, R. and **N. Lin** (2018). "Effects of wave setup and nonlinear tide-surge interaction on extreme sea levels along the U.S. East and Gulf coasts." 2018 Ocean Sciences Meeting – AGU, Portland, OR, February 11–16.
58. Schenkel, B., **N. Lin**, D. Chavas, M. Oppenheimer, and A. Brammer (2018). "A simple statistical model for the lifetime evolution of outer tropical cyclone size." 2018 AMS Annual Meeting, Austin, TX
59. **Lin, N.**, E. Shullman, S. Xian, and K. Feng (2017). "Assessing and mitigating hurricane storm surge risk in a changing environment." American Geophysical Union (AGU) Fall Meeting, New Orleans, December 11-15, 2017.
60. Jing, R., **N. Lin**, K. Emanuel, G. Vecchi, and T. Knutson (2017). "A Markov environment-dependent hurricane intensity model and its comparison with multiple dynamic models." American Geophysical Union (AGU) Fall Meeting, New Orleans, December 11-15, 2017.
61. Schenkel, B., **N. Lin**, D. Chavas, G. Vecchi, T. Knutson, and M. Oppenheimer (2017). "Will outer tropical cyclone size change due to anthropogenic warming?" American Geophysical Union (AGU) Fall Meeting, New Orleans, December 11-15, 2017.

62. Muis, S., **N. Lin**, M. Verlaan, H.C. Winsemius, P.J. Ward, and J. Aerts (2017). "Modeling extreme sea levels due to tropical and extra-tropical cyclones at the global-scale." American Geophysical Union (AGU) Fall Meeting, New Orleans, December 11-15, 2017.
63. Garnera, A.J., M.E. Mann, K.A. Emanuel, R.E. Kopp, **N. Lin**, R.B. Alley, B.P. Horton, R.M. DeConto, J.P. Donnelly, and D. Pollard (2017). "Climate change impact on New York City coastal flood risk: Increases from the pre-industrial to 2300 CE." American Geophysical Union (AGU) Fall Meeting, New Orleans, December 11-15, 2017.
64. Xian, S., **N. Lin**, K. Feng, and M. Oppenheimer (2017). "Coastal protection strategies for megacities." Society for Risk Analysis Annual Meeting, Arlington, Virginia, December 10-14, 2017.
65. Xian, S., **N. Lin**, D. Chavas, and M. Oppenheimer (2017). "A new method for simulating US hurricane losses." Society for Risk Analysis Annual Meeting, Arlington, Virginia, December 10-14, 2017.
66. Muis, S., **N. Lin**, M. Verlaan, H.C. Winsemius, J. Aerts, and P.J. Ward (2017). "Mapping of coastal flood hazard at the continental to global-scale." Regional Sea Level Changes and Coastal Impacts Conference, New York, July 10-14, 2017.
67. Garnera, A.J., M.E. Mann, K.A. Emanuel, R.E. Kopp, **N. Lin**, R.B. Alley, B.P. Horton, R.M. DeConto, J.P. Donnelly, and D. Pollard (2017). "Climate change impact on New York City coastal flood risk: Increases from the pre-industrial to 2300 CE." Regional Sea Level Changes and Coastal Impacts Conference, New York, July 10-14, 2017.
68. Jing, R. and **N. Lin** (2017). "Tropical cyclone intensity evolution modeled as a dependent hidden Markov process." 8th Northeast Tropical Meteorology Workshop, Albany, June 20-23, 2017.
69. Schenkel, B., **N. Lin**, D. Chavas, M. Oppenheimer, and A. Brammer (2017). "How much do tropical cyclones grow in size during extratropical transition?" 8th Northeast Tropical Workshop, Rensselaerville, NY, June 20–23, 2017.
70. Marsooli, R. and **N. Lin** (2017). "Risk assessment of hurricane storm tide for the US east coast and gulf coast regions: First step - validation of a coupled circulation + wave model." ADCIRC User Group Meeting, Norwood, MA, May 1-5, 2017
71. Muis, S., **N. Lin**, M. Verlaan, H.C. Winsemius, P.J. Ward, and J. Aerts (2017). Assessing extreme sea levels due tropical cyclones in the Atlantic basin." Vienna, Austria, April 23–28, 2017.
72. Schenkel, B., **N. Lin**, D. Chavas, M. Oppenheimer, and A. Brammer (2017). "How much do tropical cyclones grow in size during extratropical transition?" American Meteorological Society (AMS) Fall Meeting, Seattle, WA, January 22–26, 2017.
73. Jing, R. and **N. Lin** (2016). "Statistical investigation of the dependence of tropical cyclone intensity on the surrounding environment." American Geophysical Union (AGU) Fall Meeting, San Francisco, December 12-16, 2016.
74. Lu, P., **N. Lin**, J. Smith, K. Emanuel (2016). "Risk assessment of tropical cyclone rainfall flooding in the Delaware River Basin." American Geophysical Union (AGU) Fall Meeting, San Francisco, December 12-16, 2016.
75. Muis, S., M. Verlaan, **N. Lin**, H. Winsemius, D. Vatvani, P. Ward and J. Aerts (2016). "Towards a full representation of tropical cyclones in a global reanalysis of extreme sea levels." American Geophysical Union (AGU) Fall Meeting, San Francisco, December 12-16, 2016.
76. Orton, P., **N. Lin** and B. Colle (2016). "Ensemble tropical-extratropical cyclone flood hazard assessment with climate change." American Geophysical Union (AGU) Fall Meeting, San Francisco, December 12-16, 2016.
77. Xian, S., Shao, W., **Lin, N**., Kunreuther, H., and Goidel K (2016). "Understanding individual's voluntary flood insurance purchase." Society of Risk Analysis Annual Meeting, San Diego, CA, December 11-15, 2016.

78. Xian, S., **Lin, N.**, and Small M (2016). "Coastal protection for megacities under rising flood risk." Society of Risk Analysis Annual Meeting, San Diego, CA, December 11-15, 2016.
79. Shao, W., Xian, S., Lee, T., **Lin, N.** (2016). "Attitudes towards climate change adaptation policies across 15 countries globally." Society of Risk Analysis Annual Meeting, San Diego, CA, December 11-15, 2016.
80. Hatzikyriakou, A. and **N. Lin** (2016). "Simulating storm surge for estimating structural vulnerability and evaluating FEMA flood hazard mapping." Symposium on Probabilistic Modeling in Engineering & Science, Lehigh University, Bethlehem, Pennsylvania, October 31, 2016.
81. Xian S., **N. Lin**, J. Yin and M. Oppenheimer (2016). "How to protect coastal megacities: learning from cases." National Conference of The American Shore and Beach Preservation Association, Long Beach, NJ, Oct 25-28, 2016.
82. Hatzikyriakou, A. and **N. Lin** (2016). "Simulating storm surge for estimating structural vulnerability and evaluating FEMA flood hazard mapping." American Shore & Beach Preservation Association Conference, Ocean Place Resort, Long Branch, New Jersey, October 25-28, 2016.
83. **N. Lin** and R. Jing (2016). "Analysis and Modeling of Tropical Cyclone Climatology." SIAM Conference on Mathematics of Planet Earth, Philadelphia, PA, September 30-October 2, 2016.
84. Xian, S., N. Lin, and H. Kunreuther (2016). "Optimal house elevation for reducing flood losses." Workshop on Current Flood Insurance Policy and Potential Improvements in Wharton School, Philadelphia, PA, June 9th, 2016.
85. Little, C.M., **N. Lin**, R.M. Horton, R.E. Kopp, and M. Oppenheimer (2016). "Joint projections of sea level and storm surge using a flood index." Ocean Sciences Meeting, New Orleans, LA, USA, February 21-26, 2016.
86. Lu, P., **N. Lin**, J. Smith, K. Emanuel, D. Chavas (2015). "A physically-based tropical cyclone rainfall model." AGU Fall Meeting, San Francisco, CA, Dec. 14-18, 2015.
87. Reed, A, M. Mann, K. Emanuel, **N. Lin**, and et al. (2015). "Past, present, and future threat of tropical cyclones and coastal flooding in New York City." AGU Fall Meeting, San Francisco, CA, Dec. 14-18, 2015.
88. Xian, S., **N. Lin** and H. Kunreuther (2015). "A risk based framework to manage costal flood damage." Society for Risk Analysis Annual Meeting, Arlington, Virginia, Dec. 6-10, 2015.
89. Chavas, D., **N. Lin** and K. A. Emanuel (2015). "The tropical cyclone wind field and its variability." 17th Cyclone Workshop, Monterery, CA. October 2015.
90. Chavas, D., **N. Lin** and K. A. Emanuel (2015). "A model for the radial structure of the tropical cyclone wind field and its variability. " RPI2.0 Research Update Workshop, London, England, June 2015.
91. Chavas, D., **N. Lin** and K. A. Emanuel (2015). "A model for the radial structure of the tropical cyclone wind field and its variability." 5th International Summit on Hurricanes and Climate Change, Crete, Greece. June 2015.
92. Chavas, D., **N. Lin** and K. A. Emanuel (2015). "A model for the radial structure of the tropical cyclone wind field and its variability." Applied Physics and Applied Mathematics SEAS Colloquium, Columbia University, New York, NY. May 2015.
93. **Lin, N.** (2015). "Physically Based Assessment of Hurricane Surge Threat under Climate Change." SIAM Conference on Computational Sciences and Engineering Meeting, Salt Lake City, UT, March 14-18, 2015.
94. Mayo, T. and **N. Lin** (2015). "Hurricane Storm Surge Risk Analysis for the US North Atlantic Coast." SIAM Conference on Computational Sciences and Engineering Meeting, Salt Lake City, UT, March 14-18, 2015.
95. Mayo, T. and **N. Lin** (2014). "Hurricane Storm Surge Risk Analysis for the Development of Structures of Coastal Resilience." American Geophysical Union (AGU) Fall Meeting, San Francisco, CA, Dec. 15-19, 2014.

96. Yonekura, E., **N. Lin**, Y. Wang, and J. Fan (2014). "Using Mixture Regression to Understand and Model Tropical Cyclone Intensification in Relation to the Environment and Climate." AGU Fall Meeting, San Francisco, CA, Dec. 15-19, 2014.

97. Chavas, D., K. Emanuel and **N. Lin** (2014). "A complete tropical cyclone radial wind structure model and comprehensive comparison with observations." AGU Fall Meeting, San Francisco, CA, Dec. 15-19, 2014.

98. Yonekura, E., **N. Lin**, D. Chavas and K. Emanuel (2014). "Hurricane Economic Damage and Climate Change: Considering Hurricane Climatology and Regional Resilience." AGU Fall Meeting, San Francisco, CA, Dec. 15-19, 2014.

99. Lu, P., J. Smith, L. Cunha, and **N. Lin** (2014). "Spatial Characterization of Flood Magnitudes from Hurricane Irene (2011) over Delaware River Basin." AGU Fall Meeting, San Francisco, CA, Dec. 15-19, 2014.

100. Reed A., M. Mann, K. Emanuel, **N. Lin**, A. Kemp, and B. Horton (2014). "An Analysis of North Atlantic Tropical Cyclones and Their Impacts on Coastal Inundation in New York and New Jersey during the Last Millennium." AGU Fall Meeting, San Francisco, CA, Dec. 15-19, 2014.

101. **Lin, N.**, T. Mayo, G. Nordenson, and J. Chapman (2014). "Hurricane Storm Surge Risk Assessment for the Design of Structures of Coastal Resilience." NCAR Workshop: Engineering for Climate Extremes, Boulder, CO, Nov. 19-21, 2014.

102. Hatzikyiakou, A., **N. Lin**, J. Gong, S. Xian, and A. Kennedy (2014). "Component-based vulnerability analysis of storm surge damage to residential structures from Hurricane Sandy." S&T Innovations and Applications in Hurricane Sandy Research Workshop, Rutgers University, Oct. 21-22, 2014.

103. Mayo, T. and **N. Lin** (2014). "Hurricane Storm Surge Risk Assessment for the Design of Structures of Coastal Resilience." IMA Hot Topics Workshop: Impact of Waves Along Coastlines, Minneapolis, MN, Oct. 14-17, 2014.

104. Chavas, D., K. Emanuel and **N. Lin** (2014). "A complete solution for the radial wind structure of a tropical cyclone." National Center for Atmospheric Research (NCAR) Mesoscale and Microscale Meteorology Seminar, Boulder, CO, June 2014.

105. **Lin, N.**, P. Lane, K. Emanuel, R. Sullivan, and J. Donnelly (2014). "Climatological-hydrodynamic storm surge modeling for Apalachee Bay, Florida." 31st Conference on Hurricanes and Tropical Meteorology, San Diego, California, April 2014.

106. Yonekura, E. and **N. Lin** (2014). "A climate-dependent statistical model of tropical cyclone hazard and risk." 31st Conference on Hurricanes and Tropical Meteorology, San Diego, California, April 2014.

107. Chavas, D., K. Emanuel and **N. Lin** (2014). "Beyond the wind radius: a complete, observationally-constrained tropical cyclone radial wind profile." 31st Conference on Hurricanes and Tropical Meteorology, San Diego, California, April 2014.

108. **Lin, N.** and K. Emanuel (2013). "Reassessing Storm Surge Risk for New York City." AGU Fall Meeting, San Francisco, CA, Dec. 9-13, 2013.

109. **Lin, N.** and K. Emanuel (2013). "Black swan tropical cyclones." Davos Atmosphere and Cryosphere Assembly DACA-13, Davos, Switzerland, July 8-12, 2013.

110. **Lin, N.** and K. Emanuel (2013). "Understanding hurricane storm surge risk in a changing climate." 4th International Summit on Hurricanes and Climate Change." Kos, Greece, June 13-18, 2013.

111. Lane, P., **N. Lin**, K. Emanuel and J. Donnelly (2013). "Climatological-Hydrodynamic Storm Surge Modeling for Apalachee Bay, Florida." 1st IUGG GRC Conference on Extreme Natural Hazards and Their Impact, Orange, CA, Dec. 8-11, 2012.

112. Emanuel, N. and **N. Lin** (2013). "Black swan tropical cyclones." AGU Fall Meeting, CA, Dec. 3-7, 2012.

113. **Lin, N.** (2012). "Physically-based Assessment of Tropical Cyclone Damage and Economic Losses." AGU Fall Meeting, CA, Dec. 3-7, 2012.

114. **Lin, N.** and K. Emanuel (2012). "Storm Surge Simulation and Ensemble Forecast for Hurricane Irene (2011)." AGU Fall Meeting, CA, Dec. 3-7, 2012.

Teaching and Advising:

- Courses at Princeton University: CEE566 Wind Engineering (Fall); CEE460 Risk Analysis (Spring); CEE478 Senior Thesis (with all CEE faculty; Spring and Fall)
- Faculty Advisor of the CEE undergraduate Program of Structural Engineering
- Freshmen advising for the School of Engineering and Applied Sciences
- CEE Undergraduate Departmental Representative 2018 Fall
- Program committee for the Geological Engineering Certificate jointly in CEE and the Department of Geosciences
- Program committee for the Engineering & Management Systems (EMS) Certificate in the Department of Operations Research and Financial Engineering (ORFE)

❖ Princeton CEE offers graduate programs in two areas: Mechanics, Materials, and Structures (MMS) and Environmental Engineering and Water Resources (EEWR)

▪ Postdoctoral Associates

Luo Xu (2022-2025)
Amirhosein Begmohammadi (2022-2025)
Dazhi Xi (2022-2024) (after Princeton: Assistant Professor at University of Hong Kong)
Kairui Feng (2022-2024) (after Princeton: Associate Professor at Tongji University)
Avantika Gori (2023) (after Princeton: Assistant Professor at Rice University)
Qingchun Li (2021-2023) (after Princeton: Assistant Professor at Purdue University)
Shuai Wang (2021) (after Princeton: Research Associate at NOAA/GFDL then Assistant Professor at University of Delaware)
Luis Ceferino (2019-2021, Andlinger Postdoctoral Fellow) (after Princeton: Assistant Professor at NYU then Assistant Professor at UC Berkely)
Reza Marsooli (2016-2018) (after Princeton: Assistant Professor at Stevens Institute of Technology)
Benjamin Schenkel (2015-2017) (after Princeton: Research Scientist at University of Oklahoma and NOAA Cooperative Institute for Mesoscale Meteorological Studies)
Daniel Chavas (2013-15; NSF Fellow) (after Princeton: Assistant Professor at Purdue University)
Talea Mayo (2013-15) (after Princeton: Assistant Professor at University of Central Florida)
Emmi Yonekura (2012-15) (after Princeton: Risk Analysis Consultant at Aon Benfield)

▪ Visiting Researchers

Mingfeng Huang (2019-2020) (after Princeton: Professor at Zhejiang University)
Sajjad Muhammad (2018-2018) (after Princeton: Research Assistant Professor at Hong Kong Baptist University)
Haiwei Xu (2016-2017) (after Princeton: Assistant Professor at Zhejiang University)
Jie Yin (2014-2016) (after Princeton: Associate Professor at East China Normal University)

▪ PhD Students

MMS: Weiliang Jin, '27
Kairui Feng, '22 (STEP Fellowship; after Princeton: Postdoc at Princeton)
Siyuan Xian, '18 (STEP Fellowship, Mary and Randall Hack '69 Award)
Adam Hatzikyriakou, '17 (after Princeton: Associate Engineer at Exponent, Visiting Lecturer at Princeton)

EEWR: Amirmasoud Amini, '29

Doyup Kwon, ‘29
Aaron Spaulding, ’28
Christine Blackshaw, ’26 (NSF Graduate Fellowship)
Avantika Gori, ’23 (Princeton Honorific Fellowship, DOD Fellowship, AGU Natural Hazards Research Award; after Princeton: Postdoc at Princeton)
Dazhi Xi, ’22 (SEAS Awards for Excellence; after Princeton: Postdoc at Princeton)
Renzhi Jing, ’19 (SEAS Awards for Excellence; thesis research turned into a patent with licensing to a climate risk modeling company; after Princeton: Postdoc at Stanford University)
Ping Lu, ’17 (after Princeton: Postdoc at Peking University)

- Master’s Students

MMS: Weiliang Jin, ’24 (after Princeton: PhD student at Princeton)
Fang Zhang, ’20 (after Princeton: Data Analyst at Amazon)
EEWR: Alexis Bachas, ’16 (after Princeton: MBA study at London School of Economics)

- Senior Theses

’24: Aubrey Taylor (thesis award), Justin Zhang
’23: Elizabeth Tong, Malcolm Blinder
’22: Aidan Hintermaier, Warren Yuan
’18: Ojima Agada
’16: Shaun Stojak, Kevin Tresselt
’15: Eric Shullman (thesis award), Ariel Sanders
’14: Bradley Howard, Jason Adleberg
’13: Lauren Tauscher (thesis award), Margaret Owensby (presented thesis at *ICOSSAR2013*), Yerab Ermias

- PhD Thesis Committee

MMS: Moriah Hughes, ’26
Max Coar, ’22
Negar Khorasani, ’15
EEWR: Jing Wang, ’23
Mohammad Allouche, ’22
Molly Chaney, ’21
Miaofeng Liu, ’17
Mostafa Momen, ’16
Princeton School of Public & International Affairs: DJ Rasmussen, ’20
Geoscience: Joe Lockwood ’24
Mechanical and Aerospace Engineering: Gabriel Mantegna’27

- PhD Thesis Reader

MMS: Yao Yao, ’15

- PhD General Exam Committee

MMS: Jinjin Chen (2024)
Gaoyuan Wu (2022)
Moriah Hughes (2022)
EEWR: Xinjie Huang (2024)
Erfan Hosseini (2024)
Jing Wang (2022)
Xiaofang He (2019)
Qi Li (2016)
Geoscience: Joe Lockwood (2022)

Mechanical and Aerospace Engineering: Gabriel Mantegna (2024)

Professional Services

- **Princeton Activities:**

- Speaker at Princeton Metropolis Initiative in partnership with the Center for Global India (2024)
- Panelist: Andlinger Center Conference "Energy for AI and AI for Energy" (2024)
- Speaker at the Hearing of NJ State Senate Committee on Coastal Resilience (2024)
- Acting director for Princeton University Program in Mechanics, Materials and Structures (2023-2024)
- CEE faculty search committee (2023-2024; 2022-2023; 2021-2022, co-Chair; 2018-2019; 2017-2018)
- CEE faculty promotion committee (2023-2024)
- NJ Wind Institute Fellowship Program review committee (2023)
- Guest lecture for CBE260/EGR260 Ethics and Technology: Engineering in the Real World (2023)
- Review committee for Princeton Presidential Postdoctoral Research Fellows Program (2022)
- Roundtable with Deputy Secretary of Homeland Security John Tien (2022)
- University Limited Submission Prize committee (2021-2022)
- Panelist: Pathways into Academy Program—SEAS career development program for early-stage researchers (2021)
- Panelist: Navigating the Tenure Process (2021)
- Princeton-Rutgers briefing for Congressional staffers on hurricanes and climate change (2020)
- Presentation at Engage 2020 – Celebrate Princeton Innovation (2020)
- Co-organizer and presenter at the Princeton E-ffiliates Partnership Retreat on Coastal Adaptation (2020)
- Search committee for the Dean of the School of Engineering and Applied Sciences (2019-2020)
- Committee on the Course of Study (2019-2020)
- Committee for establishing a new CEE track of graduate study (Urban Systems, 2019)
- Review committee for SEAS Innovation Grant Proposals (2019)
- Search committee for Andlinger Center Distinguished Postdoctoral Fellows Program (2019)
- Speaker and faculty participant at Princeton Nassau Hall Society Conference in Seattle and Victoria (2019)
- Andlinger Center research presentation and discussion with Congresswoman Eddie Bernice Johnson, Chair of the House Committee on Science, Space, and Technology (2019)
- Speaker at Smart Cities--Building the Future Conference at Princeton (2019)
- Search committee for the CEE grant manager (2019)
- Meeting with Congressional Staffers Joyce Rechtschaffen and Sara Barber (2018)

- **Professional Appointments:**

- Founding Editor-in-Chief, *npj Natural Hazards*, Nature Portfolio (2023-present)
- Member of American Society of Civil Engineers' (ASCE) Committee on Adaptation to a Changing Climate (Sep. 2018 – present)
- Jury member for BBVA Foundation Frontiers of Knowledge Awards in Climate Change and Environmental Sciences (17th Edition, 2025)
- Natural Hazards Section Awards Committee (2020-present), Executive committee (Dec. 2014-Dec. 2016) and Secretary (Dec. 2012-Dec. 2014) of AGU Natural Hazards Focus Group
- Member of the New York City Panel on Climate Change (NPCC), which advises the Mayor's Office of Long-Term Planning and Sustainability (OLTPS) on recent developments in climate science, and reviews and recommends updated climate projections for the city (2013-2020, appointed by the Mayor of New York City).
- European Geophysical Union (EGU) Soloviev Medal Committee (2018-2019)
- Editor Board – GeoHazards (2020-present)
- Editor Board – *Stochastic Environmental Research and Risk Assessment* (2020-2023)
- Editor Board – *Frontiers in Water* (Oct. 2018-present)

- Reviewer Editor – *Frontiers in Built Environment* (Jan. 2015-present)
- Co-editor for Research Topic "Multivariate Extremes and Compound, Interconnected and Cascading Events: Understanding Past and Projections into the Future" in *Frontiers* (2020-2021)
- Editor for Research Topic "Worsening Tropical Cyclone Impacts in Cities" in *Frontiers* (2019-2020)

- **Organizer/Co-organizer for Workshops and Conference Sessions:**
- International Scientific Committee for 2020 Engineering Mechanics Institute conference (EMI 2020) and the13th ASCE Specialty Conference on Probabilistic Mechanics and Reliability (PMC 2020), Columbia University, May 26-30, 2020
- Universities Space Research Association (USRA), Earth from Space Institute (EfSI) 2019 Symposium Organizing Committee
- Mini-symposium "Hurricane Hazards, Risk, and Adaptation in a Changing Environment" as part of Engineering Mechanics Institute Conference 2019, California Institute of Technology, Pasadena, CA, June 18-21, 2019
- Workshop "Princeton Program in Climate Adaptation Planning and Policy (CAPP)," Princeton University, October 27, 2017
- Workshop "Current Flood Insurance Policy and Potential Improvements" organized jointly by Princeton University and Wharton School of University of Pennsylvania, Wharton Risk Management and Decision Processes Center, June 9, 2016
- AGU session "Hydrological, geomorphological and climate-related hazards in coastal regions: risk, impact and adaptation," San Francisco, CA, Dec. 14-18, 2015
- Mini-symposium "Risk and management of urban meteorological disaster" as part of the Symposium on Reliability of Engineering System (SRES'2015), Shanghai, China, Oct. 15-17, 2015.
- Mini-symposium "Multiple Hazards Associated with Tropical Cyclones and Other Wind Storms" as part of the 11th International Conference on Structural Safety & Reliability (ICOSSAR 2013), Columbia University, New York, June 16-20, 2013.

- **Review Activities:**
- Journals: *Nature*, *Nature Climate Change, Nature Communications*, *Proceedings of the National Academy of Sciences, Bulletin of the American Meteorological Society*, *Geophysical Research Letters, Journal of Geophysical Research–Oceans, Journal of Advances in Modeling Earth Systems, Journal of Applied Meteorology and Climatology, Climatic Change, Stochastic Environmental Research and Risk Assessment, Journal of Hydrology, International Journal of Climatology, Natural Hazards, Ocean Modeling, Ocean Engineering, Coastal Engineering, Journal of Marine Science and Engineering, International Journal of Disaster Risk Reduction, ASCE Journal of Structural Engineering, ASCE Natural Hazards Review, Structural and Infrastructure Engineering, Journal of Wind Engineering and Industrial Aerodynamics, Wind and Structures, Frontiers in Built Environment, Sustainable and Resilient Infrastructure, PLOS ONE, Chaos, Journal of Applied Water Engineering and Research, Environmental Science & Policy, Population and Environment*
- Proposals: NSF proposals; NSF panel review (2014, 2016, 2016, 2017, 2020, 2022)

- **Professional Affiliations:**
- American Society of Civil Engineers (ASCE)
- American Association for Wind Engineering (AAWE)
- American Geophysical Union (AGU)
- Society for Risk Analysis (SRA)
- American Meteorological Society (AMS)
- European Geosciences Union (EGU)