JEAN-PAUL PINELLI

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Department of Mechanical and Civil Engineering
Florida Institute of Technology
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PROFESSIONAL EXPERIENCE IN ACADEMIA

FLORIDA TECH, Melbourne, Florida.
Professor, Department of Civil Engineering and Construction Management -
Director, Wind and Hurricane Impact Research Laboratory - http://research.fit.edu/whirl/

EDUCATION

GEORGIA INSTITUTE OF TECHNOLOGY, Atlanta, U.S.A.

1988-1992 **Ph.D. in Civil Engineering** with minor in Engineering & Science Mechanics.
1988-1992 **Certificate in "Computer Integrated Manufacturing Systems".**
1983-1984 **Master of Science in Civil Engineering** with major in Structural Engineering.

UNIVERSITY OF BUENOS AIRES, Buenos Aires, Argentina.

1976-1982 **Civil Engineer Degree** (six-year program of study).

RESEARCH: Externally Funded Research (Total around $ 5 million) – Last 5 years

2015-2026 Natural Hazards Engineering Research Infrastructure – Cyber infrastructure (NHERI-CI). Co-Principal investigator in DESIGNSAFE.ci, the cyber-infrastructure of NHERI. Funded by the **National Science Foundation**.

2001-2025 Florida Public Hurricane Loss Model: Funded by the **Florida Department of Financial Services**, through the International Hurricane Research Center at FIU. Dr. Pinelli leads the engineering team

2019-2025 Wind Hazard and Infrastructure Impact Center. Funded by the **National Science Foundation and Industry.** Joint center between Texas Tech, Florida International University, and Florida Tech. Several projects funded through the WHIP-C.

2014-2023 Investigation and Incorporation of WOW testing outputs in the Florida Public Hurricane Loss Model. Funded by the **Florida Division of Emergency Management**, through the International Hurricane Research Center at **FIU**.

2019-2024 Wireless Sensor Network (WSN) System and LIDAR Experiments for the Characterization of Strong Wind Loads on Non-Structural components and Near-Surface Wind Profiles. Funded by the **National Institute of Standards and Technology**.

JOURNAL PUBLICATIONS (LAST 5 YEARS)

2025 Ibrahim, H. A., Ahmed, F., Metwally, O., Elawady, A., Pinelli, J.-P., "Balancing Protection and Risk: Understanding the Dual Impact of Trees on Low-Rise Buildings During Extreme Wind Events", Journal of Wind Engineering & Industrial Aerodynamics; V. 265, 2025, 106179, https://doi.org/10.1016/j.jweia.2025.106179.

2025 Ellen Rathje, Kirhna Kumar, Maria Esteva, Scott J. Brandenberg, Tim Cockerill, Clint Dawson, Jamie E. Padgett, Jean-Paul Pinelli, Dan Stanzione. "A Decade of DesignSafe: Enabling Open Science in Natural Hazards," Frontiers in Built Environment, 29 July 2025, Sec. Earthquake Engineering, Volume 11 - 2025 | https://doi.org/10.3389/fbuil.2025.1594375

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2024 Zhang, J., Subramanian, C.S., Pinelli, J.-P., Lazarus, S., Besing, H., "Performance Characterization of a Wireless Sensors Network System (WSNS) for Measurements of Hurricane Wind Effects on Structures," *Journal of Wind Engineering and Industrial Aerodynamics* 254 (2024): https://doi.org/10.1016/j.jweia.2024.105895.

2024 Ellen Rathje, Clint Dawson, Jamie E. Padgett, Jean-Paul Pinelli, Dan Stanzione, Pedro Arduino, Scott J. Brandenberg, Tim Cockerill, Maria Esteva, Fred L. Haan, Jr., Ahsan Kareem, Laura Lowes, Gilberto Mosqueda. "DesignSafe: Fostering Research through the Integration of Data, Analytics, and Computing," Frontiers in Built Environment, submitted for review.

2024 Zhuoxuan, W. Pinelli J.-P., Gurley K., and Shahid H.," Multi-Hazard Vulnerability Modeling: An Example of Wind and Rain Vulnerability of Mid/High-Rise Buildings during Hurricane Events," Wind and Structures, An International Journal, *Volume 38, Number 5, May 2024, pages 355-366* DOI: https://doi.org/10.12989/was.2024.38.5.355.

2024 Wei Zhuoxuan, Pinelli Jean-Paul, Gurley Kurtis, Hamid Shahid, and Flannery Gail, "Component-Based Estimation of Recovery Time and Time Related Expenses after Hurricane Events," Frontiers in Built Environment, Research Topic: Advances in Structural Resilience Modeling in Natural Hazard, 12 January 2024 Sec. Computational Methods in Structural Engineering Volume 9 - 2023 | https://doi.org/10.3389/fbuil.2023.1295619.

2024 Wei Zhuoxuan, Pinelli Jean-Paul, Gurley Kurtis," Component-Based Hurricane Vulnerability Model for Mid/High-Rise Commercial Residential Buildings," International Journal of Disaster Risk Reduction, Volume 100, January 2024, https://doi.org/10.1016/j.ijdrr.2023.104222.

2022 Bedwell, C., Gurley, K., Pinelli, J. P., & Silva de Abreu, R. V. The influence of ASCE 7-16 wind load provisions on a vulnerability model of Florida residential construction. *Frontiers in Built Environment*, Sec. Wind Engineering and Science, Volume 8 – November 02, 2022 | https://doi.org/10.3389/fbuil.2022.1018207.

2021 Andres Paleo-Torres, Mingwei Zhao, Kurtis Gurley, Jean-Paul Pinelli, and Mohammad Baradaranshoraka, "Modeling Flood Mitigation Measures On Coastal Residential Construction, " ASCE National Hazards Review, 22(4): 04021040. DOI: 10.1061/(ASCE)NH.1527-6996.0000507

2020 Ellen Rathje, Clint Dawson, Jamie E. Padgett, Jean-Paul Pinelli, Dan Stanzione, Pedro Arduino, Scott J. Brandenberg, Tim Cockerill, Maria Esteva, Fred L. Haan, Jr., Ahsan Kareem, Laura Lowes, Gilberto Mosqueda. ""Enhancing Research in Natural Hazards Engineering through the DesignSafe Cyberinfrastructure," Frontiers in Built Environment, section Wind Engineering and Science, https://doi.org/10.3389/fbuil.2020.547706.

2020 Roberto V. Silva de Abreu, Jean-Paul Pinelli, Farzaneh Raji, and Ioannis Zisis, "Testing and Modeling of Hurricane Wind-Driven Rain Water Ingress, Propagation, and Subsequent Interior Damage in Residential Buildings," Journal of Wind Engineering & Industrial Aerodynamics, Volume 207, December 2020, 104427. https://doi.org/10.1016/j.jweia.2020.104427

2020 J.-P. Pinelli, Josemar Da Cruz, K. Gurley, A. Paleo-Torres, M. Baradaranshoraka, S. Cocke & D.-W. Shin, " Uncertainty Reduction Through Data management for the development, validation, calibration, and operation of a hurricane vulnerability model," International Journal of Disaster Risk Science, November 2020, https://doi.org/10.1007/s13753-020-00316-4

2020 Andres Paleo-Torres, Kurt Gurley, Jean-Paul Pinelli, Mohammad Baradaranshoraka, Mingwei Zhao, Anawat Suppasri and Xinlai Peng, "Vulnerability of Florida residential structures to hurricane induced coastal flood", Engineering Structures, Volume 220, 1 October 2020, 111004. https://doi.org/10.1016/j.engstruct.2020.111004.

2020 Jean-Paul Pinelli, Maria Esteva, Ellen M. Rathje, David Roueche, Scott J. Brandenberg, Gilberto Mosqueda, Jamie Padgett, Frederick Haan, "Disaster Risk Management through the DesignSafe Cyberinfrastructure," International Journal of Disaster Risk Science, November 2020, https://doi.org/10.1007/s13753-020-00320-8

2020 Kennedy A., Florence M., Gurley K., Janssen M. Kaihatu J., Krafft D., Lynett P., Pinelli J.-P., Owensby M., Prevatt D., Rogers S., Roueche D., "Hurricane Michael in the Area of Mexico Beach, Florida," ASCE Journal of Waterway, Port, Coastal, and Ocean Engineering. https://doi.org/10.1061/(ASCE)WW.1943-5460.0000590.

2020 Raji, Farzaneh, Zisis, Ioannis, & Pinelli, Jean Paul. "Experimental Investigation of Wind-Driven Rain Propagation in a Building Interior," ASCE Journal of Structural Engineering, Vol. 146, Issue 7 (July 2020) DOI: 10.1061/(ASCE)ST.1943-541X.0002670.

PROFESSIONAL AFFILIATIONS

Integrated Disaster Risk Management Society
American Association for Wind Engineering
American Institute of Steel Construction
American Society of Civil Engineers
Earthquake Engineering Research Institute
French Society of Seismic Engineering, France.

PROFESSIONAL REGISTRATION AND CONSULTING

Registered professional engineer in the States of Florida and Mississippi. License number 53310 (FL-08/17/1998) and 19722 (MS).
Masonry contractor license 16-MA-CT-00039, Brevard County, FL
Designed several reinforced concrete structures in Brevard County.
Expert witness in litigation cases involving hurricane, wind, and flood damage.