ALEXANDER ABUABARA
Instructional Assistant Professor
Department of Landscape Architecture & Urban Planning, Texas A&M University
3137 TAMU (Scoates Hall 125), College Station, TX 77843-3137
+1.979.845.7813 – abuabara@tamu.edu
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EDUCATION

2022 **PhD in Urban and Regional Science**
Department of Landscape Architecture and Urban Planning, Texas A&M University, College Station, TX
2006 **MS in Production Engineering**
Department of Production Engineering, Federal University of São Carlos, Brazil
2001 **BS in Civil Engineering**
School of Engineering of São Carlos, University of São Paulo, Brazil

EXPERIENCE

2024-Present **Instructional Assistant Professor** (Core faculty fellow) – LAUP Texas A&M University
2022-2024 **Postdoctoral Research Associate** – LAUP Texas A&M University
• NIST Interdependent Networked Community Resilience Modeling Environment
• USACE/TTI Hurricane Evacuation Studies (Texas Southeast Region)
2022 *Summer* **Program Aide** – HRRC/LAUP Texas A&M University
2021-2022 **Graduate Assistant Lecturer (GAL)** – LAUP Texas A&M University
2015-2022 **Graduate Research Assistant (GRA)** – HRRC/LAUP Texas A&M University
• NSF Adoption and Utilization of Hazard Mitigation Practices along Gulf and Atlantic Coasts
• USACE/TTI Hurricane Evacuation Studies (Texas Coastal Bend and Rio Grande Valley)
2002-2005 **Civil Engineer** at Cutrale Citrus Juice
• Crop forecasting models and logistics of bulk transportation for orange crops, US and Brazil

RESEARCH

Research interests
Risk analysis through influence diagrams and graphical models, GIS-based models for risk assessment of social impacts and decision support systems, community-based participatory research

Publications
Google scholar: https://scholar.google.com/citations?hl=en&user=r7vp11AAAAAJ

Peer reviewed journals
• Blanks, J. Abuabara, A. Roberts, A. Semien, J. (2021) **Preservation at the Intersections: Patterns of Disproportionate Multihazard Risk and Vulnerability in Louisiana's Historic African American Cemeteries**. Environmental Justice, 14(1), 1-13.
• Horney, J. Karaye, I. Abuabara, A. Gearhart, S. Grabich, S. Perez-Patron, M. (2020) **The Impact of Natural Disasters on Suicide in the United States**, 2003–2015. Crisis, 42(5), 328-334.

- Abuabara, A. Abuabara, A. Tonchuk, C. (2017) **Comparative analysis of death by suicide in Brazil and in the United States: descriptive, cross-sectional time series study**. Sao Paulo Medical Journal, 135, 150-156.
- Abuabara, A. Morabito, R. (2009). **Cutting optimization of structural tubes to build agricultural light aircrafts**. Annals of Operations Research, 169(1), 149-165.
- Abuabara, A. Morabito, R. (2008) **Modelos de programação inteira mista para o planejamento do corte unidimensional de tubos metálicos na indústria aeronáutica agrícola**. Gestão & Produção, 15(3), 605-617.

Reports and data
- Lane, G., Rosenheim, N., Williams, A., Watson, M., Maher, D., Rathburn, A., & Peacock, W. G. (2024). **Food Aid Agency Data**, in Food Access Impact Survey for Harris County and Southeast Texas after Hurricane Harvey in 2017. DesignSafe-CI. https://doi.org/10.17603/ds2-t9qb-sc26.
- Lee, R. J. Day, W. Abuabara, A. Newman, G. Peacock, W. (2022/2023). **The effect of flood buyouts on nearby property values** – Working paper for the Lincoln Institute of Land Policy.
- Rosenheim, N. Lane, G. Katare, A. Watson, M. Williams, A. Peacock, W. Abuabara, A. Perez, M. Sullivan, E. Kastor, H. (2021). **Food Retailer Data**, in Food Access Impact Survey for Harris County and Southeast Texas after Hurricane Harvey in 2017. DesignSafe-CI. https://doi.org/10.17603/ds2-36xg-pt90.
- Peacock, W. Abuabara, A. Wunneburger, D. Bierling, D. Mullins, J. Borchardt, D. (2020) "**Coastal Bend Hurricane Evacuation Study: Evacuation Zone Development Report**".
- Peacock, W. Wunneburger, D. Abuabara, A. Bierling, D. Mullins, J. Borchardt, D. (2020) "**Coastal Bend Hurricane Evacuation Study: Vulnerability Analysis Report**".
- Bierling, D. Lindell, M. Peacock, W. Abuabara, A. Moore, R. Wunneburger, D. Mullins, J. Borchardt, D. (2020) "**Coastal Bend Hurricane Evacuation Study: Hurricane Harvey Evacuation Behavior Survey Outcomes and Findings**".
- Mullins, J. A., Borchardt, D., Bierling, D., Peacock, W. G., Wunneburger, D., Abuabara, A. (2020) "**Coastal Bend Hurricane Evacuation Study: Transportation Analysis Report**".
- Peacock, W. Wunneburger, D. Abuabara, A. Park, H. Van Zandt, S. (2016) "**Rio Grande Valley Hurricane Evacuation Study: Vulnerability Analysis Report**".

Conferences with peer reviewed abstracts (underlined name indicates the presenter)
- Day, W., Abuabara, A., Peacock, W. G., Wade, H. **FEMA's Financial Housing Assistance to Owners and Renters After Hurricane Harvey**. 49th Natural Hazards Workshop. Jul 2024 – Broomfield, CO.
- Blanks, J., Abuabara, A. **Did You Check on the Cemetery? A Geospatial Risk Assessment of Cemeteries in Southeast Louisiana**. PRIMR Conference at PVAMU. Mar 2023 – Prairie View, TX.
- Abuabara, A., Day, W., Peacock, W. G., Wade, H. **An Analysis of FEMA's Individual Assistance After Hurricane Harvey**. Natural Hazards Research Summit. Oct 2022 – Washington, DC.
- Abuabara, A., Peacock, W. G., Bierling, D., Lindell, M. **A Statistical Analysis of Household Evacuation in Response to Hurricane Harvey**. Society for Risk Analysis Annual Meeting. Dec 2020 – Austin, TX.
- Abuabara, A., Medina-Cetina, Z., Peacock, W. G. **Application of Bayesian Networks to Hurricane Risk Assessment**. Society for Risk Analysis Annual Meeting. Dec 2019 – Arlington, VA.
- Horney, J., Karaye, I., Gearhart, S., Abuabara, A., Perez-Patron, M. **Impact of Natural Disasters on Suicide Risk in the United States**. American Public Health Association Annual Meeting. Nov 2019 – Philadelphia, PA.
- Abuabara, A., Peacock, W. G. **Importance of Mobile Homes to Determine Natural Hazard Evacuation Boundaries**. 46th Natural Hazards Workshop. Jul 2017 – Broomfield, CO.

- Abuabara, A. **Considerations for Modeling Natural Hazard Evacuation of Mobile Neighborhoods and Mobile Parks in the Texas Valley Region**. 42nd Urban Affairs Assoc. Conference, Mar 2016. San Diego, CA.
- Abuabara, A., Morabito, R. **Pipe Cutting Optimization: Application to the Aeronautics Industry**. Latin-Iberoamerican Conference on Operations Research (CLAIO). Nov 2006 – Montevideo, Uruguay.

Presentations, workshops, conferences, and seminars

2023	SOA Research Symposium – **Modeling Individual Assistance to Households in Texas After Hurricane Harvey**
2023	Texas Emergency Management Conference – **A Web-Based GIS Platform and Applications for Evacuation, Preparedness, Response, Mitigation, and Recovery Planning: The Texas Hazard Resilience Atlases**
2022	IN-CORE All CoE Summer Research Meeting – **FEMA Individual Assistance Program for Housing**
2021	Texas GIS Day – **Spatial Analysis in R**
2021	Texas GIS Day – **Introduction to QGIS**
2020	Texas GIS Day – **Spatial Analysis in R**
2020	Texas GIS Day – **Introduction to QGIS**
2019	TAMU GIS Day – **Introduction to QGIS**
2018	TAMU GEOSAT Seminar – **Hurricane Evacuation Studies**
2018	TAMU GIS Day – **Introduction to QGIS**
2017	TAMU GIS Day – **Introduction to QGIS**

Honors and awards

October 6-7, 2022	NSF Travel Award for Natural Hazards Research Summit – Washington, DC
June 20-22, 2022	NSF NHERI Summer Institute for Early-Career Faculty Award – San Antonio, TX
August 19-26, 2018	IBOT GEOSTAT Open-Source GIS Developers Summer School – Prague, Czech
May 14-26, 2018	NSF PIRE Coastal Flood Risk Reduction Research – Amsterdam, Netherlands
2015-2022	HRRC Full Tuition Assistantship – College Station, TX
2014-2015	LAUP Graduate Program Scholarship – College Station, TX

Professional affiliations and memberships

2019-present	Society for Risk Analysis (SRA)
2018-present	Center for Geospatial Sciences, Applications and Technology (GEOSAT)
2017-present	Stochastic Geo-mechanics Laboratory (SGL)
2015-present	Hazard Reduction and Recovery Center (HRRC)
2015-present	TAU SIGMA DELTA Honor Society
2001-2006	Regional Council of Engineering and Agronomy of São Paulo (CREA-SP)

TEACHING
Teaching interests
Analytical research methods, spatial analysis and GIS tools, risk assessment modeling

Teaching experience
Instructor of Record (Texas A&M University)
Fall 2024   URPN 210 – Urban Analytical Methods I

Fall 2024	URPN 310 – Urban Analytical Methods II	
Fall 2024	URPN 325 – Introduction to GIS in Urban and Regional Planning	
Fall 2024	PLAN 604 – Planning Methods I (graduate-level)	
Spring 2024	URPN 201 – Evolving Cities	(Teaching Evaluation: 4.86)
Spring 2024	URPN 210 – Urban Analytical Methods I	(Teaching Evaluation: 4.53)
Spring 2024	URSC 642 – Analytical Methods II (graduate-level)	(Teaching Evaluation: 4.71)
Fall 2023	URPN 210 – Urban Analytical Methods I	(Teaching Evaluation: 3.60)
Fall 2023	PLAN 604 – Planning Methods I (graduate-level)	(Teaching Evaluation: 4.08)
Spring 2023	URPN 210 – Urban Analytical Methods I	(Teaching Evaluation: 4.56)
Fall 2022	FYEX 101 – First Year Experience	(Teaching Evaluation: 4.38)
Fall 2022	URPN 201 – Evolving Cities	(Teaching Evaluation: 3.88)
Fall 2022	URPN 210 – Urban Analytical Methods I	(Teaching Evaluation: 4.73)
Spring 2022	URPN 210 – Urban Analytical Methods I	(Teaching Evaluation: 4.86)
Fall 2021	URPN 201 – Evolving Cities	(Teaching Evaluation: 4.53)
Fall 2021	URPN 210 – Urban Analytical Methods I	(Teaching Evaluation: 3.67)
Spring 2021	URPN 210 – Urban Analytical Methods I	(Teaching Evaluation: 4.71)
Fall 2020	URPN 210 – Urban Analytical Methods I	(Teaching Evaluation: 4.63)
Spring 2020	URPN 210 – Urban Analytical Methods I	(Teaching Evaluation: 4.62)
Fall 2019	URPN 210 – Urban Analytical Methods I	(Teaching Evaluation: 4.63)

Teaching assistant (Texas A&M University)

Spring 2022	URSC 642 – Analytic Methods II (graduate-level)	(Teaching Evaluation: 5.00)
Spring 2019	URSC 642 – Analytic Methods II (graduate-level)	

Computer

Repositories: https://github.com/abuabara

Advanced experience in MacOS, R, QGIS, LaTeX, Excel.

Languages

Portuguese (native), English, Spanish. *Trying* to learn German.

Other interests

Cartography, photography, construction toys, board and video games, and running, biking, and swimming.