

2025 Climate Health Frontiers Symposium

AI and Data for Mitigation, Adaptation, and Resiliency

Poster Presentations at a Glance

Enhancing Disaster Resilience of Dialysis Care Through Geospatial Risk Mapping and Mobility Analytics

Saurabh Mohite

co-authors: Saurabh Mohite, Utkarsh Gangwal, Shangjia Dong, Jennifer Horney

Student Perspectives on Heat and Quality of Life on a College Campus

Quinn Valier

Co-authors: Ngoc-Trang Adrienne Nguyen, Sally Nguyen, Ryan Lester, Mia Lukenbill, Chloe Clark, Nomita Bajwa, Cori Grant, Quinn Valier

Climate and Health: Machine Learning Insights into Heat-Related Mortality

Eva Davila

Co-authors: Ava Black, Eva Davila, Fernanda Razo, Melanie Moreno

Addressing Health Equity Using an Environmental Justice Approach

Hooman Yalali

Co-authors: Hanadi Rifai and Lola Adepoju

Preparing, reacting, and adapting: Prioritizing social work students as natural disasters compound

Amber Mollhagen

Co-authors: Helen Spencer and Suzanne Spritzker

PFAS – A Challenging Emerging Pollutant for Health in a Changing Climate

Jessica Alanis

Co-authors: Hanadi Rifai

Sentiment Analysis Using Word2Vec and Bi-LSTM Networks

Audrey Rah

Healthcare Greenhouse Gas Inventory Evaluation

Neeharika Kolli

Co-authors: Neeharika Kolli, Michael Boninger, Kate Zettl

Strategic Microgrid Investment and Resilient Society

Farzane Ezzati

Co-authors: Sasha Dong and Gino Lim

Enhancing Post-Hurricane Damage Assessments with Semi-Supervised Transformers and Ultra-High Resolution Aerial Imagery

Deepank Singh

Co-authors: Vedhus Hoskere

Prescribing Justice: Houston's Redlining Impact On Medical Access

Carlos Mendieta

Co-authors: Carlos Mendieta, Nikhila Achanta, Srivarshini Achanta, Anika Vadlamudi, Ana Velazquez, Andrew Kapral, Dan Price

The Fifth Ward Cancer Cluster: Analyzing the Financial Burden of Cancer Care

Elizabeth Tran

Co-authors: Elizabeth Tran, Elyse Tran, Thomas Ton, Amsha Rehan, Nursemin Ugur, Andrew Kapral, Dan Price

Using USLE to Predict the Theoretical Extent Enhanced Picket Prairies Can Mitigate Toxin in Rainfall Runoff

Ritesh Ravi

Co-authors: Ritesh Ravi, Milena Brocchini, Andrew Kapral, Dan Price

Measuring Creosote Exposure through Prevalence of Linked Diseases in Houston's Fifth Ward and Surrounding Areas

Loyed Siby

Co-authors: Loyed Siby, Jyothylakshmi Manoj, Joyce Joy, Salwa Khan, Andrew Kapral, Dan Price

Hurricane Exposure, Character Traits, and Hurricane Event Centrality

Cristy Pestilos

Co-authors: Cristy Pestilos and Rodica Ioana Damian

Novel Techniques of Carbon Capture Monitoring: A Crucial Step in CO₂ Sequestration in the Permian Basin

Muhammad Khan

Co-authors: Muhammad N. Khan, Ganesh C. Thakur

Promoting health and mitigating Environmental degradation in the top 20 emitting countries

Ali Sohail

Co-authors: (unable to present poster due to travel restrictions)

The Climate Divide: Unveiling the Disproportionate Burden on Immigrant Communities in the United States

Yvonne Dadson

Co-authors: Dadson, Yvonne Appiah, Bennett-Gayle, DeeDee M., Ramenzoni, Victoria, Cook , Gilmore, Elisabeth A.

Empowering Patients through Improved Consent Form Readability: A Comparative Study of Language Complexity Tools and ChatGPT at UCLA Health

Alejandra Duque

Co-authors: Alejandra Duque, Muhammad Iqbal, Arash Naeim

Subtyping Social Determinants of Health in Cancer: Implications for Precision Healthcare Policies

Suresh Bhavnani]

Co-authors: Suresh K. Bhavnani, Weibin Zhang, Rodney Hunter, Yong-Fang Kuo, Susanne Schmidt, Shyam Visweswaran, Brian Downer, Jeremy Warner

Visualizing Community Voices: Community-Driven Insights on Mental Health and Climate Disasters in Houston

Adebosola Karunwi

Co-authors: Adebosola Karunwi, Laura De la Roche, Omolola E Adepoju

Using Artificial Intelligence to Improve Cardiometabolic Health: Developing a Kidney Transplant Derailers Index to Predict Transplant Dropout Risk for African American and Hispanic Patients

Solaf Al-Awadhi

Co-authors: Solaf Al Awadhi, Thomas Potter, Catherine Pulicken,, Andrea Meinders, Faith Parsons , Stephen Jones, Ioannis Kakadiaris, David Axelrod,, Amy D. Waterman

Hunting Bayou Floods: How expanding floodplains exacerbate the resilience of historically underserved communities

Francisco Haces Garcia

Co-authors: Hanadi Rifai and Craig Glennie

Wildfire Risk in Texas Communities

Nile Hanife Incekara

Co-authors: Will Vines and Hanadi Rifai

Global Flood Simulation with a New Runoff Scheme in Xantho

Yuanqi Hong

Co-authors: Hongyi Li

Assessing Air Quality Disparities at the County Level in the US

Sophia Soltes

Co-authors: Will Vines and Hanadi Rifai

Investigating Relationships Using Data Analytics between Health and Air Quality for Houston

Ainaz Khalili

Co-authors: Will Vines and Hanadi Rifai

Chemo-preventive of Garlic in Human Leukemia cells: Involvement of Oxidative Stress, Apoptosis, and Cell Cycle Arrest

Sylvianne Njiki

Enhancing Rapid Flood-Inundation Prediction and Mapping with Fourier Neural Operators: A Hybrid Approach to Compound Flooding Events

Wonhyun Lee

Co-authors: Alexander Y. Sun, Bridget R. Scanlon, Kamyar Azzizadenesheli

Assessment of physical environment features on outdoor thermal comfort: a campus case study using a machine learning-based prediction

Yue Zhang

Co-authors: Xiaoyu Li, Dongying Li, Robert Brown

Single-cell and Spatial Characterization of the DFUs microenvironment

Mario Flores

Co-authors: Karla Paniagua

Effects of Climate Change on Extreme Heat in Texas

William Vines

Co-authors: Hanadi Rifai