



POSTER PRESENTATIONS

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Calibrating Coastal Urban Vulnerabilities and Resilience Through Modeling: A New Additive Model Quantifies The Vulnerability Of Buildings At The Hyper-Local Level Of Parcels

Sonia Chao, Benjamin Ghansah, and Madeleine Li

“Engineering The Wetland Of The Future”: Using Open Source Electronics To Investigate Microclimates Within Phragmites Australis Chambers

Maya Bhalla-Ladd

A Novel 75-Year Database and Climatology Of Heat Index Values In Miami

Brian McNoldy and Robert Molleda

A Sequential Sampling-Based PSO To Control Droop Coefficients Of Distributed Generation Units In Microgrid Clusters

Abdurrahman Yavuz

A Synthesis Of Climate Change Conceptual Models Linking Multidisciplinary Research

Marissa A. Kobayashi, Maria M. Llabre, Kiara R. Timpano, and Patrice G. Saab

Advancing A Hyperlocal Approach To Community Engagement In Climate Adaptation: Results From A South Florida Pilot Study In Two Communities

Tyler Harrison, Angela Clark, Amy Clement, Joanna Lombard, Gina Maranto, Abraham Parrish, Sam Purkis, Marcus Reamer, Olivia Collins, Caroline Lewis, Mayra Cru, Anaruth Solache

After The Storm: Resiliency and Recovery Planning Of Endangered Cultural Patrimonial Sites In The Family Islands Of The Bahamas As A Model For Preservation and Development In The Greater Caribbean

Teofilo Victoria, Ricardo Lopez, Chris Mader

Agricultural Soil Health Monitoring Using Portable Bacterial Biosensing Systems.

Harun Roshid, Greg O'Connor, Emre Dikici, Jean-Marc Zingg, Shouan Zhang, Sapna Deo, Leonidas Bachas, and Sylvia Daunert

Association Of Extreme Weather and Healthcare Utilization

By People Living With HIV In Miami, Florida

Danielle Bass, Pardis Ghamasae, Lunthita Duthely, Daniel Samano

Bio-Inspired Genetically Engineered Self-Healing For Resilient Coastal Infrastructure

Ali Ghahremaninezhad, Elvis Baffoe, Sadegh Tale

Breaking Down Siloes: Hemispheric Dialogues Focused Upon Sub-Tropical and Tropical Coastal Resilience

Sonia Chao and Madeleine Li

Building The Magicverse-Visualizing Land Use and GIS Data For Urban Design

Juan J. Alayo

Carbon Sequestration

Andrew Aidman, and Blake Miller

Characterizing Hearing and Balance Health In Noise-Exposed Populations

Snapp, HA, Solle, N, Millet, B, Kiderman, A, Rajguru, S. Charles Ave 3DP, Maxwell Jarosz

Climate Gentrification: Designing A Comprehensive Assessment Tool Of Historical, Social, and Geographic Factors To Guide Actionable and Equitable Neighborhood Resilience

Robin Bachin, Imelda Moise, Abigail Fleming and Cameron Riopelle

Climate Resilience & Rescue A Reef XR App

Dalton Hesley, Tiffin Baker, and Diego Lirman

Climatopia: The Risks and Opportunities Of Utopia In Climate Design

Alizé Carrère

Collaborative Governance: A Key Practice To Unlock Transformative Resilience Benefits

Natalia Brown

Compounding Climate Risks and Adaptation In Coastal Communities

Steven Koller

Concrete Descriptions Of Future Situations – A New Urbanity For Wynwood Norte

Eric Firley

Control Shrinkage Cracking Of Concrete Using Non-Metallic Rebars and Meshes

Hossein Roghani

Controlling Parameters In The Design Of Concrete Slabs Reinforced With Non-Metallic Reinforcement

Zahid Hussain

Decreasing Anesthesia's Carbon Footprint Using Ecoflow

Nicole Hektner, Nicole A. Gonzaga Gomez, and Greta M. Vladinov

Designing and Testing A Mobile App Intervention For Motivating Pro-Environmental Habits

Michelle Seelig, Chinghua Chuan, Wanhsiu Sunny Tsai, Weiting Tao, and Soyeon Kim

Developing A Whole-Cell Biosensing System For The Detection Of A Novel Quorum Sensing Molecule

Michael Moraskie, Gregory O'Connor, Sapna Deo, and Sylvia Daunert

Developing Resiliency Tools and Metrics and Co-Designing An Expert and Stakeholder Coalition To Sustain Predictions On The Health Of South Florida's Biome Through A Human, Urban and Environmental Transect

Villy Kourafalou, Sonia Chao, David Kelly, Yui Matsouda, Renato Molina, Maria Josefina Olascoaga, and Shivangi Prasad

Digital 3-D Models Of Coral Reefs

Art Gleason

Disruption Of Circadian Rhythms Enhances Susceptibility Of Brain Endothelial Cells To Environmental Stress

Timea Teglas, Desiree Coker, and Michal Toborek

Dynamic Short-Term Adjustments To NOAA Tide Predictions Using A Multiple Linear Regression Model

Nathan Taminger, Brian McNoldy, and Brian Soden

Energy Management For Microgrid Enabled Mobile Edge Computing (MEC) Networks Using A Dynamic Driven Approach

Temitope Runsewe

Engineering Corals For Climate Change Resilience

Patrick Kiel, Ian Enochs, Vivek Prakash, and Prannoy Suraneni

Experimental Tests On Concrete Elements Reinforced With GFRP Rebars: Test To Evaluate Bond Durability and NDTs For Rebars Detection

Luca Galli

Florida Current and Sea Level - FOCUS

Lisa Beal

Florida Firefighters' Noise Exposures and Hearing Health

Barbara Millet and Natasha Solle

Graphical Communication Of Hurricane Risk For Vulnerable Populations

Sharanya Majumdar, Barbara Millet, Kenneth Broad, Alberto Cairo, Scotney Evans, and Brian McNoldy

Catalytic Oxidation of N₂O, •NO and •NO₂ to Nitrate in Salt Mixtures. A New Pathway to Convert N_xO_y to Green Fertilizer

Oswaldo Guio, Burjor Captain, and Carl Hoff

Human-Driven Stressors Shape Microbial Community Structure With Cascading Effects On Primary Producers In An Imperiled South Florida Ecosystem

Kasey N. Kieseewetter and Michelle Afkhami

Hurricane and Storm Surge Resilient Housing For The Sub-Tropics and Tropics

Sonia Chao, Landolf Rhode-Barbarigos, and Gabriela Feito

Hurricane Evacuation Decision-Making: The Role Of Flood History, Flood Risk, and Worry

Scott Pollowitz

Identifying Early Clinical Markers Of Noise-Induced Hearing Loss.

Vanlooy, L, Kuzbyt, B, Harris, K, Solle N, Millet, B, Rajguru, S, and Snapp, HA

**Identifying Public Response and Uncertainty To Hurricane Ida's Remnants (2021)
In The Northeastern United States**

Savannah Olivas, Sharanya Majumdar, Brian McNoldy, and Alberto Cairo

Identifying, Prioritizing, and Validating Green Infrastructure Approaches To Enhance Coastal Resilience

Mohammad Ghiasian

**Integrating Resilience Into Sea-Level Rise Adaptation Decision-Making Models
For Decentralized Infrastructure**

Lamis Amer

Internal Tree Stem Damage In Queensland, Australia

Abbey Yatsko

Mechanical Splices For Non-Metallic Reinforcing Bars In Concrete Structures

Nafiseh Kiani

Microgrid Operational Planning Using Deviation Clustering Within A DDDAS Framework

Joshua Darville

Monitoring Of Hazardous Noise Exposure Using Wearables: An Apple Watch Study

Suhrud M. Rajguru, Natasha, Kristine Harris, Solle, Barbara Millet, and Hillary Snapp

**Monitoring The Distribution Of Persistent Organic Pollutants From
Contaminated Sites In The Wake Of Natural Disasters**

*U. Bakali, J. Baum, C. Killawala, E. Dikici, N. Schaefer Solle, E. N. Kobetz,
A. J. Caban-Martinez, L. Bachas, S. Deo, and S. Daunert*

Nature As A Defense From Disasters: Natural Capital and Municipal Bond Yields

Claudio Rizzi

Non-Destructive Testing Of GFRP Reinforced Secant Pile Self Consolidating Concrete With Fluidifier

Christian C. Steputat

Non-Metallic Material For Shear Transfer Mechanism In Prestressed Concrete Bridge Girders

Camilo Vega

Novel, Multi-Functional Seawall Designs

Joel Lamere and Esber Andiroglu

Ocean Alkalinity Enhancement For Carbon Capture

Laura Stieghorst

On-Site Detection Of Bacterial Contamination For Food Safety Monitoring

*Sabrina Petrucci, Connor Costa, David Broyles, Avinash Kaur,
Emre Dikici, Sylvia Daunert, and Sapna K. Deo*

Our Coming Inundation

Harold R. Wanless

Pedagogy Evolves To Meet A Shifting Landscape For Emerging Professionals

Sonia Chao, Madeleine Li and Camila Zablah

**Point Of Care Assays As Tools For Monitoring Emerging Pathogens – Development Of Tri-Nucleotide
Rolling Circle Amplification; A Novel Method For The Detection Of RNA and DNA**

Jean-Marc Zingg and Sylvia Daunert

Point-Of-Care Platform For Monitoring Emerging Pathogens

S. Seely, P. Joshi, Y.P. Yang, J.M. Zingg, S. Deo, and S. Daunert

**Quantitative Evaluation Of Internalized Exposure To Polycyclic Aromatic Hydrocarbons In Clinical
Samples Of South Florida Firefighters**

A. Kafkoutsou, U. Bakali, K. Santiago, E. Dikici, E. Kobetz, S. Deo, A. Caban – Martinez, and S. Daunert

Research Based Guidelines For Designing Forecast Products

Jennifer Amendola

**Resilient and Sustainable Concrete Infrastructure Utilizing Corrosion-Resistant Fiber Reinforced
Composite Materials**

Christian C. Steputat

**Situational Uncertainty Interacts With Anxiety Sensitivity and Distress Intolerance To Predict
Anticipated Worry and Preparation For A Hurricane**

Hannah C. Broos

Socio-Climatic Hotspots In Mexico and Central America

Kaitlyn C. Payne and Ana Macouzet De Maria Y Campos

Space-Geodetic Monitoring Of Coastal Structures

*Falk Amelung, Sara Mirzae, Nina Jean-Louis, Esber andrioglu,
Antonio Nanni, Amin Sarafraz, and Imelda K. Moise*

Spatial and Temporal Mapping Of Polycyclic Aromatic Hydrocarbons In Active Fires

*C. Killawala, J. Baum, U. Bakali, K. Santiago, E. Dikici, N. Solle,
E. Kobetz, A. Caban-Martinez, S. Deo, and S. Daunert*

STEM Community Outreach and Education

Esber Andiroglu, Ali Ghahremaninezhad, Austin Perry

Storm Surfing Casualties

Irene Goo, Armando Alvarez, Lauren Shapiro

Structural Resilience Of Reinforced Concrete Walls Through Non-Metallic Materials

Jesús Ortiz

**Successful Methods For Meaningful Community Engagement: A Cross
Section Of Efforts Across South Florida and The Caribbean Basin**

Sonia Chao, Steven Fett, and Jaime Correa

Sustainability and Resiliency Adaptation Laboratory

Nancy Lewis, Nina Maria Jean-Louis, Drew Rich, and Austin Perry

**Sustainable Cities and Communities Through GFRP Secant-Pile Seawall
Innovation, Sustainability, Fortification and Storm-Surge Protection**

Christian C. Steputat, Derin Ural, and Antonio Nanni

Sustainable Photocatalytic Degradation Of Chlorinated Organic Pollutants

Ahmed E. Elmetwally, Marc Knecht, and Leonidas G. Bachas

**The Fiscal Vulnerability and Neighborhood Interactions Of
The Property Tax Base In Miami-Dade County.**

*Alex Nyburg, Ian Wright, Katharine Mach, Xavier Cortada, Jessica Owley,
Rosalind Donald, Jennifer Niemann, and Adam Roberti*

The Underwater: Using Socially Engaged Art To Address Sea Level Rise

Xavier Cortada

THREAD (Training In Heat-Related Equity and Disparities) Research Collaborative

*Nkosi Muse, Mayra Cruz, Julia Marturano, Lynee Turek-Hankins,
Austin Bozgoz, and Mars Fernandez-Burgos*

Tropical Architecture For The Future Integrated Design Studio

Edgar Sarli

**Understanding Knowledge and Attitudes Of Persons Living With HIV During Extreme Weather Events
and Their Perceptions On Healthcare Utilization: Results Of A KAP Survey At JHS/UM Health Systems.**

Pardis Ghamasaei, Danielle Bass, Lunthita Duthely, and Daniel Samano

Understanding The Impacts Of Climate Change Via Mathematical Models

Robert Stephen Cantrell and Chris Cosner

Untold Stories At Risk: Coastal Heritage, Site Risk Assessment, and Educational Outreach

Sara Ayers-Rigsby

**Using Community-Engaged Research To Launch Climate Change Resilience From An Inclusive Design
Beachhead Starting With Southeastern Floridians Living With Spinal Cord Injury (Sci)**

David W. McMillan

Valuing Nonhumans In Climate Resilience

Ethan Prall

Views On The Future Of Florida: Environmental Attitudes and Policy Preferences Across Sectors

Julia Wester