



## DISTINGUISHED LECTURE

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*Thursday, September 7, 2023 @ 3:30 PM, Watt Center Auditorium  
Reception follows in the Watt Center Atrium*

### *From Fragility and Losses to Risk Mitigation at the Nexus of Waterfront Industries and Fenceline Communities*

Many coastal communities are co-located and intrinsically interwoven with industrial installations, including ports, chemical plants, or oil and gas operations. While these industries are often strategically placed along the coast, their positioning alongside neighboring communities leaves them jointly susceptible to hurricane-



induced hazards and their compound effects. We characterize these locations where waterfront industries, particularly those with heavy industrial development and hazardous materials or pollutants, comingle with surrounding fenceline residential populations as Coastal Industrial Communities (CICs). This presentation explores methods for modeling and reducing multi-hazard risks to industrial infrastructure in CICs when exposed to hurricanes events. Case studies are taken from the Houston Ship Channel, home to the world's second largest petrochemical complex.