1. Record Nr. UNINA9910674017403321

Autore	Luettich Rick
Titolo	Coastal Hazards Related to Storm Surge / / Rick Luettich
Pubbl/distr/stampa	Basel : , : MDPI - Multidisciplinary Digital Publishing Institute, , 2018
Descrizione fisica	1 online resource (258 pages)
Disciplina	333.917
Soggetti	Coastal zone management
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	About the Special Issue Editor v Preface to "Coastal Hazards Related to Storm Surge" . vii Haydee Salmun and Andrea Molod The Use of a Statistical Model of Storm Surge as a Bias Correction for Dynamical Surge Models and Its Applicability along the U.S. East Coast doi: 10.3390/jmse3010073 1 Steven A. Hughes and Christopher I. Thornton Tolerable Time-Varying Overflow on Grass-Covered Slopes doi:10.3390/jmse3010128 13 Carl Drews Directional Storm Surge in Enclosed Seas: The Red Sea, the Adriatic, and Venice doi:10.3390 /jmse3020356 28 Brian A. Colle, Malcolm J. Bowman, Keith J. Roberts, M. Hamish Bowman, Charles N. Flagg, Jian Kuang, Yonghui Weng, Erin B. Munsell and Fuqing Zhang Exploring Water Level Sensitivity for Metropolitan New York during Sandy (2012) Using Ensemble Storm Surge Simulations doi:10.3390/jmse3020428 39 S Jeffress Williams and Nabil Ismail Climate Change, Coastal Vulnerability and the Need for Adaptation Alternatives: Planning and Design Examples from Egypt and the USA doi:10.3390/jmse3030591 51 David Didier, Pascal Bernatchez, Genevive Boucher-Brossard, Adrien Lambert, Christian Fraser, Robert L. Barnett and Stefanie Van-Wierts Coastal Flood Assessment Based on Field Debris Measurements and Wave Runup Empirical Model doi: 10.3390/jmse3030560 65 Philip M. Orton, Stefan A. Talke, David A. Jay, Larry Yin, Alan F. Blumberg, Nickitas Georgas, Haihong Zhao, Hugh J. Roberts and Kytt MacManus Channel Shallowing as Mitigation of Coastal Flooding doi:10.3390/jmse3030654 91 Alan E. Stewart The Measurement of Personal Self-Efficacy in Preparing for a Hurricane and Its Role in Modeling the Likelihood of Evacuation doi:10.3390

/jmse3030630 108 Harry V. Wang, Jon Derek Loftis, David Forrest, Wade Smith and Barry Stamey Modeling Storm Surge and Inundation in Washington, DC, during Hurricane Isabel and the 1936 Potomac River Great Flood doi:10.3390/jmse3030607 130 Serge Suanez, Romain Cancout, France Floch, Emmanuel Blaise, Fabrice Ardhuin, +FBO Franois Filipot, Jean-Marie Cariolet and Christophe Delacourt Observations and Predictions of Wave Runup, Extreme Water Levels, and Medium-Term Dune Erosion during Storm Conditions doi:10.3390/jmse3030674 149 Ron Karl Hoeke, Kathleen L. McInnes and Julian G. O'Grady Wind and Wave Setup Contributions to Extreme Sea Levels at a Tropical High Island: A Stochastic Cyclone Simulation Study for Apia, Samoa doi: 10.3390/jmse3031117 172 Kevin McGuigan, Tim Webster and Kate Collins A Flood Risk Assessment of the LaHave River Watershed, Canada Using GIS Techniques and an Unstructured Grid Combined River-Coastal Hydrodynamic Model doi:10.3390/jmse3031093 188 Su Yean Teh, Michael Turtora, Donald L. DeAngelis, Jiang Jiang, Leonard Pearlstine, Thomas J. Smith III and Hock Lye Koh Application of a Coupled Vegetation Competition and Groundwater Simulation Model to Study Effects of Sea Level Rise and Storm Surges on Coastal Vegetation doi:10.3390/jmse3041149 207 Jordan R. Fischbach, David R. Johnson and Kenneth Kuhn Bias and Efficiency Tradeoffs in the Selection of Storm Suites Used to Estimate Flood Risk doi:10.3390/jmse4010010 231.

Sommario/riassunto

Annotation Globally, the risk associated with living in the coastal zone is substantial and rising due to large and growing populations, commerce and infrastructure; relative sea level rise; and the impacts of a warming climate on storm characteristics. The principal coastal hazards in much of the world are storm surge, coastal flooding and surface waves caused by severe tropical or extra-tropical storms. This volume presents state of the art research that extends our understanding of, and our ability to predict coastal hazards that are associated with storm surge. Fourteen papers cover topics ranging from predicting coupled surge and wave dynamics at multiple scales; erosion and scour; statistical considerations for hazard delineation; joint effects of climate change and storm surge; storm surge mitigation strategies and human response to storm surge threats. This work presents important advancements in our ability to predict, mitigate and respond to the principal hazard threatening most of the world's coastal areas. Recognizing these advancements and translating them into policy and practice are essential if we are to effectively manage coastal risk and create more resilient coastal communities in which to live, work and recreate.