

A Novel Technique to Map Compound Inundation in Coastal Watersheds

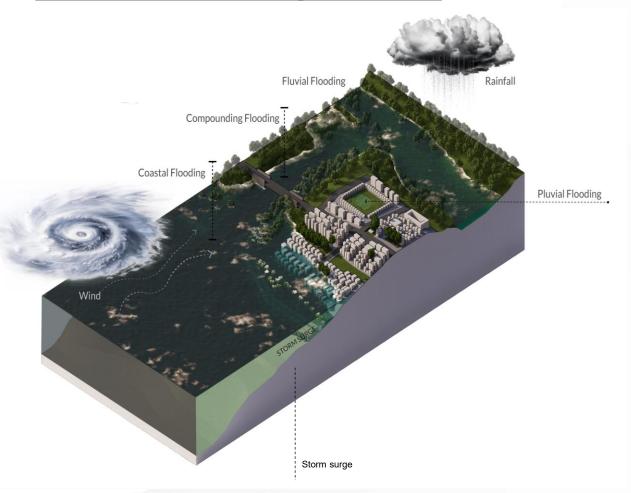
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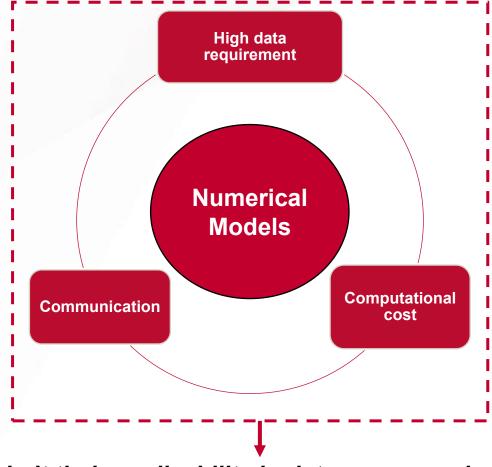
September 25th, 2025

Introduction

What is a flooding hazard?

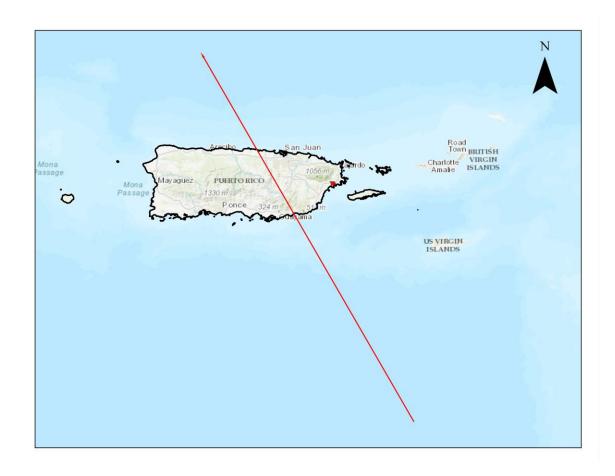


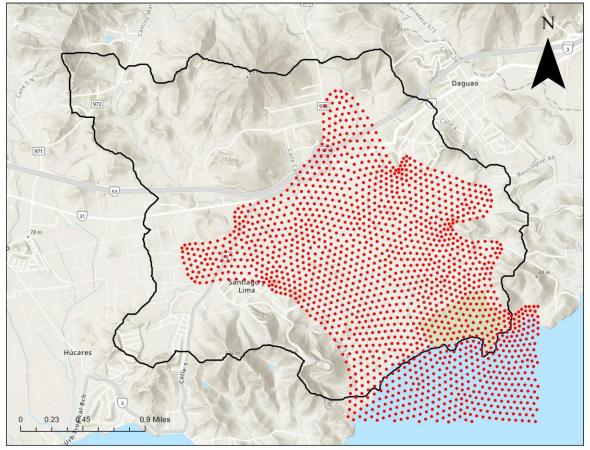
Challenges of Numerical Models



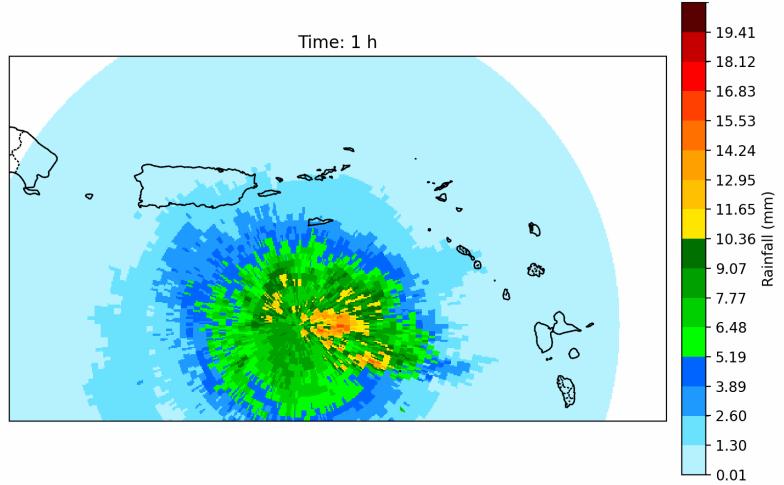
Limit their applicability in data-scarce regions

Study Area





Study Area

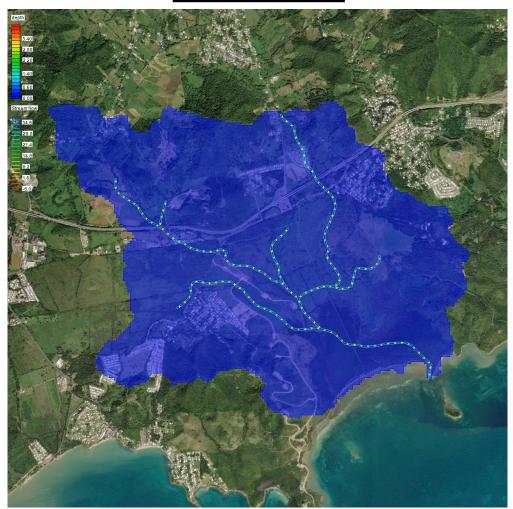


Rainfall Field synthetic storm: 330 deg - Category 2

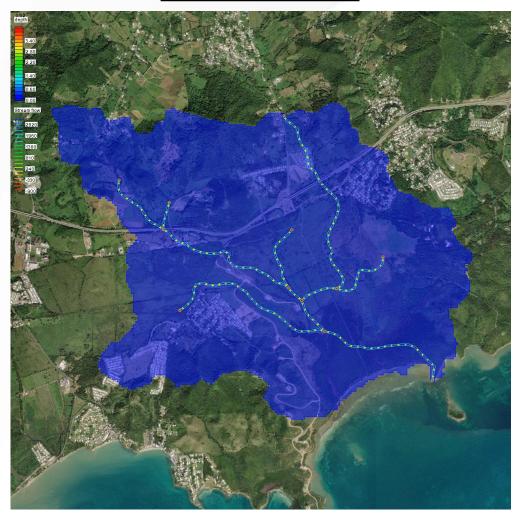


Why we need compound flood maps?

Rainfall-Runoff

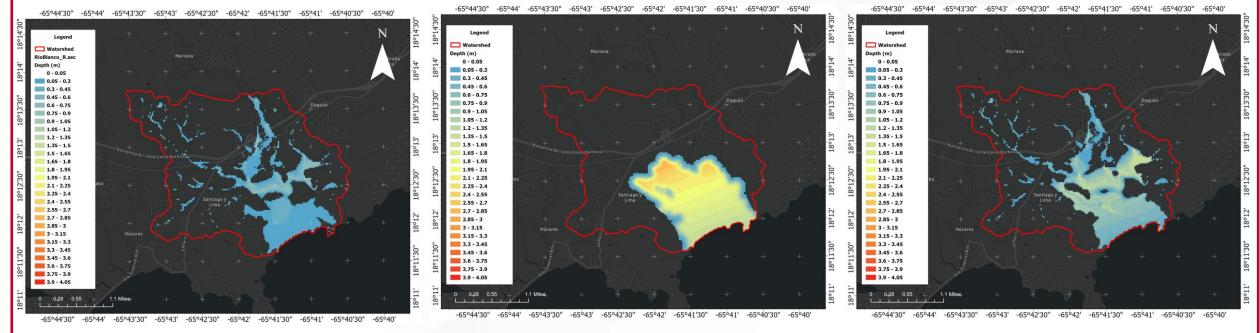


Compound Flood





Maximum Flood Depth Maps



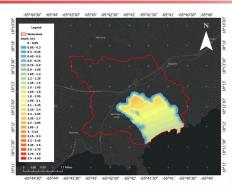
Rainfall-Runoff

Storm Surge Map

Compound Flood

What is the issue?



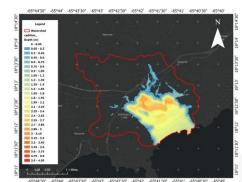


Storm Surge Map

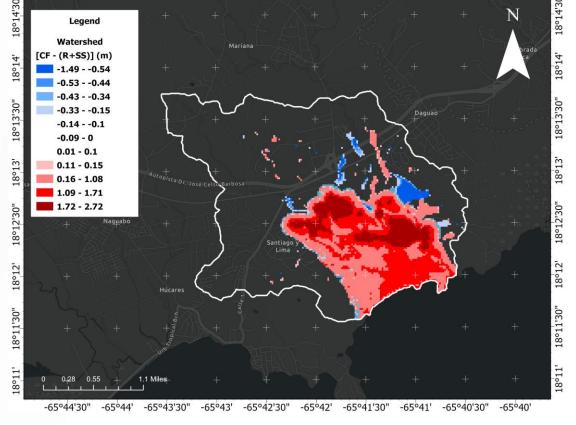




CF Modeled



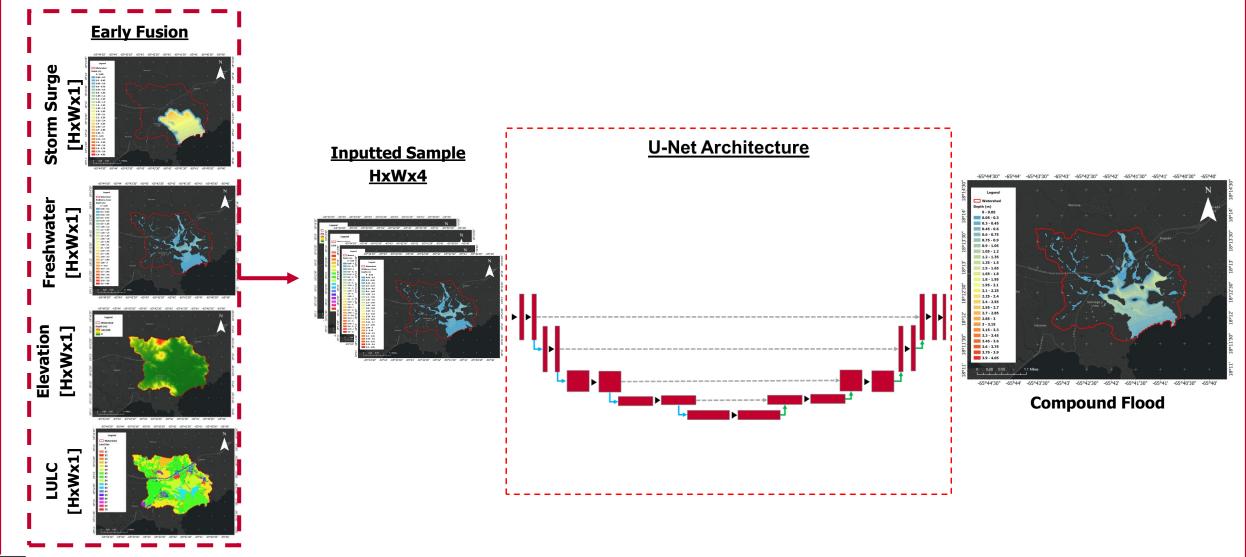
CF Linear



Map of Diffenences between CF-Linear and CF Modeled



Proposed Approach



Acknowledgments

Poster: PB07







Thank You

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