

↓ Title of Research: 18-20 pt, Sans-Serif Font (Calibri, Arial, etc)

Research Title: Capitalize only proper nouns, and avoid using all caps

↓ Denote primary author/speaker(*) and author affiliations by number

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[Abstract Body: Summarize your research concisely within the 250-word limit. The abstract body should contain the following: state of the problem in a topic sentence or two, general description of procedures and methods, results (can be preliminary), and conclusions (or predicted/anticipated). Please omit mathematical formulas, tables/figures or callouts, abbreviations, and references.]

AUTHOR AFFILIATION (Italicized, 12 pt, Times New roman)

AUTHORS (Bold, 12pt, Times New Roman)

ABSTRACT BODY (Unbolded, 12pt, Times New Roman, 1.5 line spacing, justified paragraph)

[Abstract Example]

Quantifying sediment transport in the Houston-Galveston region from Hurricane Harvey (2017)

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Southeastern Texas recorded the largest flooding event in US history during Hurricane Harvey from August 25-31, 2017. Over 20,350 km² received >0.75 m (30 in) of precipitation, mobilizing substantial volumes of sediment in Houston-Galveston fluvial-estuarine systems. We conducted an integrated quantitative analysis to determine the net volume of sediment transported during the storm using pre- and post-Harvey digital elevation models (DEMs), Google Earth satellite and ground-based images, and sediment dredging reports along major waterways. The 12 fluvial-estuarine and 2 controlled reservoir drainages in the Houston-Galveston area recorded ~6.2 km³ of precipitation, transporting a minimum of $\sim 2.723 \times 10^7$ m³ of sediment, equivalent to ~6-51 and ~30-118 years of annual discharge to Galveston Bay (GB) by fluvial-estuarine systems, compared to the modern and Holocene, respectively. Nearly ~26% of the measured volume was deposited in Addicks and Barker reservoirs, 50 km west of downtown Houston, decreasing holding capacities by ~1.2% and ~1.6%, respectively. In the stream drainages, sediment was transported from higher elevations west-northwest of Houston to lower elevations towards GB. Sediment deposited downstream inside stream banks decreases bankfull volume capacities and increases future susceptibility to flooding. Additionally, the magnitude of sediment transport is inversely proportional to the degree of artificial channel modification. Natural channels disrupt urban areas during floods by retaining sediments in adjacent floodplains while artificially modified channels disrupt downstream navigable channels by sediment bypass.