



Beyond the Wind: Rethinking the Saffir-Simpson Hurricane Wind Scale¹

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Abstract

The Saffir-Simpson Hurricane Wind Scale (SSHWS) has been a cornerstone of hurricane categorization since its development in the 1970s. However, its wind-centric focus excludes critical hazards such as storm surge, rainfall, and storm size—factors often responsible for most of the damage and fatalities. This paper identifies these gaps, evaluates recent catastrophic hurricanes, and introduces the Composite Hurricane Impact Scale (CHIS), which integrates storm surge, rainfall, and wind factors into a unified framework. The CHIS aims to enhance emergency response, public awareness, and disaster preparedness.

Keywords: Hurricane categorization, storm surge, rainfall intensity, Saffir-Simpson, disaster preparedness

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