

## ABSTRACT

### A Storm Surge Model for the Islands of the Eastern Caribbean

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A numerical-dynamic, tropical storm-surge model for the Eastern Caribbean is developed by modifying a general model known as SLOSH, an acronym for Sea Lake and Overland Surges from Hurricanes, originated by Jelesnianski, Chen & Shaffer [1]. The major modifications are;

- (1) Adaptation to suit the islands of the Eastern Caribbean, which involves the preparation of the basin or grid network.
- (2) Conversion of the *Von Neumann* sequential program to a parallelized form.

The new model has been tested both on model hurricanes and on true storms for which meteorological data are available. The results indicate that it may be well worthwhile to further develop the model to the stage at which real time projection of storm surges may be obtainable with the use of a desktop computer.