

SEA SURFACE HEIGHT SIMULATION METHOD BASED ON QUANTUM WALK

ABSTRACT

The present invention discloses a sea surface height simulation method based on a quantum walk, which comprises the following steps: (1) generating multiple fluctuation components of a sea surface height based on the quantum walk; (2) screening the components of the sea surface height; (3) simulating the sea surface height based on a principle of component superposition; and (4) performing an experimental verification. The change in sea surface height is further analyzed from the perspective of multi-scale decomposition, the relationship between the change in sea surface height and a sea surface fluctuation mode is explored, and the modeling and simulation of the change in sea surface height is realized from the perspective of superposition coupling of multiple components. Therefore, the sea surface height change simulation method makes a great breakthrough in the modeling and simulation directions of the sea surface height.

(FIG. 1)