



A study on the optimization of wind wave models

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This paper, in view of the single SWAN model, the WAM model, the NWWIII model and WAM/SWAN nest model, discusses these models' calculation ability. Because each model has different value methods, parameter values and empirical equation, the computed results also can be various. Through simulate calculation in spent time, different mesh analysis, and time ranges, the relation between correlation coefficient and absolute error in simulate results and actual values is discussed. The result shows that the WAM/SWAN nest model has higher accuracy than the other models in the wave height simulation. The WAM model compared with the other three models in the cyclical simulation has the best simulate result. NWWIII model takes the shortest time in simulation. In the research, when typhoons coming, the mesh of WAM/SWAN nest-shaped pattern can describe the water depth change in nearshore better, so it can simulate a more accurate wave height peak value.