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#### **ACCEPTED MANUSCRIPT**

## Marine Depth Mapping Algorithm Based on the Edge Computing in Internet of Things

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#### Abstract

In recent years, the research of marine environmental monitoring system has been especially popular. The construction of Internet of things between devices occupies the main position in marine environment detection system. In order to protect and utilize marine resources, it is urgent to realize the collection and treatment of marine information. We have established the Internet of things system for large ocean data collected by sensors. We calculate the ocean data in terminal devices such as sensors. In the process of calculation and arrangement of data, this paper presents a new method for the calculation of data contours. The aim of this method is to quickly describe the contour of data. The distribution of contour lines can be calculated accurately in a short time. This paper introduces the principle and calculation process of the method. The simulation of big data calculation is carried out in practice. The simulation results are also analyzed. Finally, the advantages of this method are illustrated by comparison simulation. In the same set of data and conditions, the method achieves the improvement of computational efficiency and calculation accuracy. It has certain signi?cance in practical application.

Keywords:

Contour line, triangle grid, marine information, marine Internet of things

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