

The potential and challenge of laboratory experiments on tsunami deposits

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Field surveys have been played an very important role in researches on tsunami deposits. The observed ancient tsunami deposits can be the strongest evidence for the existence of mega tsunamis in the survey field. For this reason, the field survey is the most basic and necessary method to investigate tsunami deposits.

On the other hand, the interpretation of tsunami deposits observed in the field faces with considerable difficulty because the formation of tsunami deposit affected by the magnitude of the tsunami, local topography, bed materials and environmental after the tsunami. Therefore, the comparison between hydrological characteristic of tsunami and depositional characteristic of the resulting tsunami deposits is not a easy task.

In this presentation, we are going to discuss the potential and challenge of laboratory experiments by taking the large scale experiments conducted by CRIEPI as an example. We will also discuss what kind of information is needed for field surveys, laboratory experiments and numerical simulations to develop our knowledge on tsunami deposits.

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