

# Large-scale laboratory experiment of tsunami deposits on alluvial lowland with an aeolian dune

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The characteristics of tsunami deposits, such as distribution and sedimentary structure, are greatly influenced by the incident wave, topography, bed material and post-tsunami alternation. However, considerable variation of tsunami deposits in the field caused by local topography makes it difficult to reveal the effects of these factors on the resulting deposits. The authors have conducted the large-scale laboratory experiment on tsunami deposits and succeeded in reproducing the deposits that shows landward thinning and fining and several subunits with normal and inverse grading. The parameter control regarding incident wave, bed material, and topography in the flume enables us to investigate the relationship between hydrodynamic conditions and the resulting deposits.

In this presentation, we are going to present the experimental result with the topography similar to the alluvial lowland. We will discuss the characteristics of deposits on the lowland and compare them with those on the sloping topography. Our experimental result will provide useful information for future field investigation and interpretation of tsunami deposits.

Keywords: Tsunami deposit, Large-scale laboratory experiment, sedimentation