Recognition and importance of fine-grained slope failure deposits for deep-sea paleoseismology

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Deep-sea slope failure deposits have been used to reconstruct past large earthquakes in the deep-sea environments. Many works used sandy turbidites for the reconstruction. However, fine-grained gravity flow deposits also have the potential to record the slope failures. For example, fine-grained turbidite mud has different characteristics in bulk density, grain size distribution and grain composition from normal hemipelagic mud. Detailed observation of marine cores will provide us information on small-scale slope failure events producing the fine-grained gravity flow deposits.

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