# Analogue Model Experiments of Accretionary Prism(1); Insights into fault growth from PIV analysis

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The accretion process of sediments at subducting margins can be modelled and examined by using analogue experiments. These results revealed that the process is primarily controlled by faulting. Since such brittle behaviour of geology, characterised by frictional faulting, can be appropriately modelled by granular materials, we performed sandbox experiments, which approximate geologic body as an assembly of particles. Since natural accretional prisms include detachment layers, we inserted a layer consists of lower frictional materials. In order to examine the internal deformation during the wedge formation, the side view of the experiment was analysed with a PIV technique and extracted velocity distributions within the wedge.