



Stoss-aggrading bedforms from dilute pyroclastic density currents

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The sedimentary signature of dilute pyroclastic density currents often contains intriguing bedform patterns of stoss-depositional, aggrading laminations forming structure 1 to >20 meters in length. These are traditionally interpreted as antidunes and chute and pools.

The contribution presents a variety of data concerning these bedforms, using a variety of methods, from the traditional naturalist approach, but also using dense arrays of GPR profiles, sedimentary peels revealing fine-scale details, and surface geometries revealed from terrestrial laser scanner data.

In light of the data, we attempt to discuss and challenge the interpretation as antidune. Several alternative interpretations are suggested, such as differential draping effects, a topography effect acting on the basal transport layer, or alternative fluid dynamics interpretation.

Far from being closed, we hope that the debate and discussions shall be triggered in light of the data, and may serve as an analogue for other sedimentary environments such as the turbidite context or glacial outburst events.