General Theme 4
4.6

Traditionally, sediment gravity flows have been studied in flume tanks and modelled in computer simulations using non-cohesive particles with most of the focus on sandy deposits. However, the importance of clay in governing flow behaviour and the style of deposits have been highlighted by recent studies. The muddy parts of gravity flow deposits (e.g. mudstone caps) are now receiving greater attention because of information they provide on depositional systems and it is increasingly recognized that some sandstone deposits contain significant amount of clay (e.g. hybrid event beds). Additionally, micropalaeontological, ichnological and geochemical investigations on mudstone caps are becoming more and more critical for the understanding of their formation and diagenesis. This session aims to bring together a range of research themes exploring mechanisms of clay entrainment (e.g. erosional processes), clay effects on flow behaviour (e.g. flow transformations), clay deposition (e.g. as mud-clasts, matrix clay, mudstone caps), and the role of organic material that is often associated with clay-rich sediment. Studies from diverse approaches such as numerical modelling, flume experiments and outcrop studies are invited for an interdisciplinary session that promises to leave you stuck in the mud!