

General Theme 4

4.2

The objective of this session is to bring together a broad range of sedimentologists, including experimentalists, numerical modelers, marine geologists and field geologists, to focus on our current understanding of sedimentary processes and products of deltas, canyons, submarine fans and subaquatic sediment gravity flows. In such settings, the interaction between terrestrial sediment delivery, episodic dip-slope events (e.g. turbidity currents and mass-transport processes), longer-persistent along-slope contouritic processes and/or evolving seabed morphology on a wide-range of geologic timescales result in erosional features and depositional sedimentary sequences, the reconstruction of which provides key information to constrain regional tectonic, geologic and climate history. Furthermore, sediment density flow from the shallow to the deep sea have widespread implications for the transfer and burial of sediment mass and organic carbon, geohazards to offshore infrastructure, benthic ecosystem, and formation of oil and gas reservoirs. We invite presentations that contribute to the advancement of our understanding of sediment dynamics, natural hazards, paleo-reconstruction and environmental / economic implications associated with such sedimentary processes. We particularly welcome studies that use new technologies such as direct monitoring and/or apply comprehensive and interdisciplinary approaches combining morphodynamics, numerical modelling, physical experiments and studies of marine deposits at different scales.