

General Theme 24

4.8

Subaerial and subaqueous landslides involve a wide variety of processes, features and materials. They are present in almost all environments, from the deep ocean to the highest mountains. Furthermore, landslides might be the predominant erosion agent and mobilize several thousand km³ of sediment over distances of several hundred km. The landslide record in sedimentary basins may be driven by climatic and tectonic events and is therefore significant in sequence stratigraphic analysis. From a source to sink perspective, landslides may displace large amounts of material over short time spans that may act as sediment source for rivers and submarine channel networks. Offshore studies reveal a number of interactions between sediments and fluids that is key to understand their role as reservoirs, seals and traps in petroleum plays. In recent times, 3D seismic geomorphology, satellite imagery, improved downhole logging/imaging techniques and new numerical codes are also helping bridge the gap in knowledge between recent and outcrop studies, onshore and offshore investigations. In this session, we invite contributions from experimental, numerical and field (outcrop, core and geophysical) investigations that advance our understanding of sediment dynamics, natural hazards and their effects on fluvial or subaqueous sediment drainage systems. Exchange of knowledge between the subaerial and subaqueous landslide communities and identification of new challenges is encouraged.