Fluid flow is a first-order feature of the geodynamic evolution of basins and orogens. Fluids interact with rocks from the earliest stages of sedimentation until the stages these rocks are deformed and/or metamorphized and then exhumed. Fluids are major contributors to mineralization and ore deposits, hence of resources, and the interactions between fluid flows and tectonic structures, such as fault zones, strongly influence the mechanical behavior of the crust at different space and time scales (e.g., variations of fluid (over)pressure, seismogenic behavior).

This session aims at making the point on our knowledge of fluid-rock-tectonics interactions in basins and forelands (deformed or not deformed) and at evaluating to what extent fluids influence, and in turn are influenced by, rock composition and physical/rheological properties and structural evolution (folds, fault zones) at different levels of the continental crust. We will focus on regional/case studies (e.g., fluid-rock interactions and fluid signatures in compressional, strike-slip or extensional settings) as well as on more technical aspects (recent advances in methods and techniques for fluid characterization and fluid pathways reconstruction, fluid-rock interaction modeling : geochemical transport-reactive; fluid-flow, mechanics, thermal and diagenesis modeling, dating of fluid circulation). We welcome contributions dealing with either hydrocarbon fluids (petroleum and gas systems; basin modeling) or hydrothermal and/or basinal fluids (mineralizing fluid systems). We also welcome works on the role and behavior of fracture systems and fault zones during fluid circulation in the crust down to the brittle-ductile transition (e.g., transient vs long-term fluid-rock interactions in fractures and faults, rock alteration related to fluid flow through faults, mineralizations and ore bodies associated with faults).