

General Theme 2

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Our understanding of sedimentary processes and products associated with aeolian and desert systems has significantly evolved during the past decade. However, detailed facies analyses which account for the natural variability and which enable effective comparison between modern systems and their ancient counterparts at architectural scale, in particular, remains an important research goal. The importance of gaining an improved understanding of the sedimentology and stratigraphy of aeolian systems and desert basins is twofold: such research has both scientific and applied industrial value. Firstly, these depositional systems and basins preserve a valuable Proterozoic to Quaternary record of climate variability. Deciphering the relative role of allocyclic controls on the evolution of these systems remains an important task. The application of multidisciplinary approaches including the combination of new aeolian tracer techniques, the use of more accurate remote sensing data and detailed facies and architectural analysis in the field is enabling new insights to be gained in order to compare between recent and ancient aeolian counterparts. Secondly, aeolian and desert successions constitute excellent hydrocarbon reservoirs worldwide, with a variety of ages, and in both extensional and compressive basin types. This session will cover geological, sedimentological, stratigraphical aspects associated with modern and ancient aeolian systems, and coeval marine and continental depositional systems as well as the evolution of modern and ancient desert basins. The session particularly seeks contributions that combine multidisciplinary approaches including sedimentological and stratigraphical and basin analysis approaches. Contributions on planetary geology dealing with extraterrestrial aeolian systems are welcome. Studies of the sedimentology, diagenesis and modelling of aeolian reservoir successions, as well as detailed studies of outcrop analogues of aeolian reservoirs are also welcome to this multidisciplinary session.