

Modern seismic data have become an essential toolkit for studying carbonate platforms and reservoirs in impressive detail. Whilst driven primarily by oil and gas exploration and development, data sharing and collaboration are delivering fundamental geological knowledge on carbonate systems, revealing platform geomorphologies and how their evolution on millennial time scales, as well as kilometric length scales, was forced by long-term eustatic, oceanographic or tectonic factors. Quantitative interrogation of modern seismic attributes in carbonate reservoirs permits flow units and barriers arising from depositional and diagenetic processes to be imaged and extrapolated between wells.

This volume reviews the variety of carbonate platform and reservoir characteristics that can be interpreted from modern seismic data, illustrating the benefits of creative interaction between geophysical and carbonate geological experts at all stages of a seismic campaign. Papers cover carbonate exploration, including the uniquely challenging South Atlantic pre-salt reservoirs, seismic modelling of carbonates, and seismic indicators of fluid flow and diagenesis.