Motivation:
We gained new insights into the dynamics and evolution of the W-Pacific Warm Water Pool during the last \(~2.5\) million years, as well as the possible oceanographic interactions between the Pacific and the Southern Ocean ("Ocean Tunnel Hypothesis") and their climatic consequences.

Methods:
Based on sediment cores, which were obtained during the expedition SO225 with RV SONNE at the Manihiki Plateau in the tropical W-Pacific, geochemical analyses (coupled Mg/Ca and \(\delta ^{18}O\)) on different foraminiferal species allowed to reconstruct upper ocean temperature and salinity. Plankton studies were carried out for proxy calibration studies.