

## **BOTTOM TOPOGRAPHY, SEDIMENTATION AND ORIGIN ASPECTS OF SÃO SEBASTIÃO CHANNEL , SP, BRAZIL**

1Valdenir Veronese Furtado1 Luis Américo Conti 1Marcelo Rodrigues. 1-Instituto Oceanográfico, Universidade de São Paulo, São Paulo, Brazil.

The earlier origin of the São Sebastião channel is associated to tectonic and magmatic events, which are responsible for Serra, do Mar uplift, in upper Mesozoic and lower Cenozoic. The reactivation of old structures caused a local subsidence that results in a tectonic valley aligned with the main regional structures. Subsequently sub-aerial erosion and sea-level fluctuations modeled the area giving its modern configuration. The bottom topography reflects the tectonic origin identified by a main axis orientated to SW-NE and displaced islandward, where the bigger depths occur. An another axis, aligned with secondary structures, occurs in the southern portion of the area. Regressive and transgressive events generate morphosedimentary features in the channel bottom. At the southern entrance, a tabular feature was developed, related to a regressive deposition and reworked by subsequent marine transgressions. Northward there's a development of a sandy spit, currently submerged, related to ancient coastlines. At this place beach rocks were identified at depths of 13 meters. The modern sedimentation is associated to the present currents movements, generates preferentially by wind forces.