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Poster
The Gravity and steady state Ocean Circulation Explorer (GOCE) satellite mission measures Earth’s gravity field with an unprecedented accuracy at short spatial scales. Preliminary results have already demonstrated a significant advance in our ability to determine the ocean’s general circulation. The improved gravity model provided by the GOCE mission has enhanced the resolution and sharpened the boundaries of those features compared with earlier satellite only solutions. In this study, more recent gravity models from GOCE are combined with the DTU10MSS mean sea surface to construct a global mean dynamic topography (MDT) model. Calculation of the geostrophic surface currents from the MDT reveals improvements for all of the ocean’s major current systems. Furthermore, the finer scale features, such as eddies, meanders and branches of the current system are visible.
OSTS session
The Geoid, Mean Sea Surfaces and Mean Dynamic Topography
Meeting name
Ocean Surface Topography Science Team (OSTST) Meeting
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