



Space geodesy and the ocean circulation

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The overwhelming success of space geodesy in the past years has provided a wealth of information to physical oceanographers. We will review two decades of research at our institute focussed mostly on using the 'absolute dynamic height', i.e. altimetric height referenced to an advanced geoid model. Stationary inverse models and time varying ocean models utilizing data assimilation are presented. More recently we have made use of time varying gravity models derived from GRACE to improve our oceanic understanding. In a further step we apply oceanic knowledge from models and in situ measurements to help improve GRACE products of oceanic mass distribution.