



## **Oceanic planetary waves in a quasi-geostrophic coupled model**

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Oceanic planetary waves are studied in the framework of a Quasi-Geostrophic Coupled Model (Q-GCM). After the identification of the planetary waves, two different questions are posed: are the waves coupled to the overlying atmosphere? and, are they affected by baroclinic instability processes?. To test these hypothesis the model is set to different configurations (basin ocean, periodic channel ocean, 3 and 6 oceanic layers) and the responses at two different latitudes are studied. Statistical techniques such as EOFs, CEOFs and CCA and ocean modes analyses are performed to identify the primary ocean-atmosphere processes and coupled wave modes.