Abstract View

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On the Parameterization of Geostrophic Eddies in the Ocean

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ABSTRACT

An attempt is made to incorporate into a two-layer, zonally averaged, channel ocean model the important transfers achieved by a geostrophic eddy field, using gross parameterizations rather than resolving individual eddy events. It is shown that a representation of the eddy field as an explicit diffuser of potential vorticity can give a reasonable description of the interaction between the eddies and mean flow, provided care is taken to satisfy the attendant constraints that the zonally invariant channel geometry imposes on the eddy fields.