Abstract View

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The Transverse Circulation Near a Coast

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ABSTRACT

The structure of the steady transverse circulation of a rotating stratified fluid on an *f* plane is analyzed in two stages. First, a length scale analysis is performed, giving the relationships between the vertical and horizontal length scales. Then an idealized problem in which there is an offshore Ekman transport near a coast is solved, giving the detailed structure of the transverse circulation. Boundary layer structures which decay algebraically are found from the formal solution.