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Abstract View

Residual Flow and Boundary Shear Stress in the Turbulent Bottom Layer Beneath Waves

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ABSTRACT

A model is considered of the turbulent bottom boundary layer beneath waves. Closure is effected at the level of the turbulent energy equation and numerical solutions are obtained by a combination of finite-difference methods and a pseudo-spectral technique. These solutions are used to evaluate the induced streaming motion and the boundary shear stress. An expression is derived for the friction coefficient in terms of the bottom roughness and this is found to agree with values reported in experimental studies.

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