

Abstract Submitted
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Experimental Analysis of Entrainment Rate in Wall-bounded Gravity Current at Different Richardson Numbers JUN CHEN, Purdue University — Determining the entrainment rate of wall-bounded gravity current is of important implication in geophysical flows. A series of laboratory experiments are designed to investigate the small-scale flow structures and dynamics of mixing by simultaneous measuring the density and velocity in a gravity current introduced into a stratified environment along a inclined plate. The experiments are conducted at different Richardson number by varying the density stratification and mean flow velocity. The results are used to evaluate the Richardson number dependence of entrainment rate and compared with the prediction of different parameterizations.

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