Geophysical Research Abstracts, Vol. 9, 04175, 2007 SRef-ID: 1607-7962/gra/EGU2007-A-04175 © European Geosciences Union 2007



Stratified Decaying 2D Flows: Experiments in Non-Rotating and Rotating Conditions

 $^{\rho}$ **J. A. Carrillo**, $^{*\rho}$ A. Matulka, and $^{\rho}$ J. M. Redondo.

^ρ Dep. Física Aplicada, U.P.C. Campus Nord, Barcelona 08034 Espanya.

* Warsaw University of Thecnology, Poland.

Two set of turbulence decaying experiments were been focused in the meddle of a density interface. Experiments were separated in two categories as: a) Stirring (Non-Rotating) Decaying 2D Turbulence, and b) Rotating Decaying 2D Turbulence. On the one hand, the whole group of stirred experiments were a compilation of five sets of total mixing experiments, dependent on the initial Richardson number. The Total time mixing was between 53 and 72 minutes. The density of fluid after the total mixing was in the limits between 1027 and 1037. On the other hand, the boundary conditions from all the rotating experiment conditions related to Reynolds Re, Rossby Ro, Ekman Ek and Richardson gradient Rig numbers are reported; moreover parametric spaces of Rig, Re and Ro are analyzed.