

Vortex motions in stratified wake flows

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Abstract. The vortex wakes of obstacles (circular cylinder and sphere) moving through a linearly stratified fluid have been investigated, by means of flow visualization, at Reynolds numbers smaller than 800 and non-dimensional buoyancy frequencies smaller than 6. Vortex shedding from a horizontally suspended circular cylinder is suppressed when the fluid is stratified. The wake of a sphere is affected by lee waves when the Reynolds number exceeds about 200.