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Experiments in stably stratified wakes II: The early wake behind a sphere[1] TRYSTAN MADISON, XINJIANG XIANG, PRABU SELLAPPAN, GEOFFREY SPEDDING, University of Southern California — The wake of a towed sphere has been used as a canonical case for investigating turbulence in a stratified environment, and certain late wake features compare well with numerical experiments that have no sphere. As a result empirically-established evolution laws that do not depend on initial or boundary conditions are thought to be quite general. It is just becoming possible, experimentally and numerically, to access the early stages of flow development around the sphere itself, when a much more specific and rigorous comparison of similar quantities can be made. Here the first quantitative early wake data behind a towed sphere in a laboratory experiment for $Fr = \{2, 8\}$ and $Re = \{2500, 10000\}$ are presented.

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