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**Vorticity shedding from a sphere moving vertically in a stratified fluid** HIDESHI HANAZAKI, TATSUYA YASUDA, KOKI TAKAGI, SHINYA OKINO, Kyoto University — A numerical study is described of the flow past a sphere moving downward at constant speeds in a stratified fluid. The wake under moderate or strong stratification remains axisymmetric even for $Re > 200$, unlike the flow of a homogeneous fluid which becomes asymmetric for $Re > 200$. A striking feature is that this axisymmetric flow often gives, under moderate stratification, an axisymmetric 'vorticity' shedding, which has never been observed in the wake of an axisymmetric bluff body. In this study, corresponding experiments have also been performed, showing that a non-axisymmetric wake with horizontal fluctuations tend to appear at some heights above the sphere. This suggests that the axisymmetric flow would be hard to be realised in actual flows at high Reynolds numbers ($Re > 200$).

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