

## **THE EVOLUTION OF LINEARIZED PERTURBATIONS IN A STRATIFIED TWO-LAYERED UNBOUNDED SHEAR FLOW WITH ROTATION**

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### **Abstract**

Using the initial value problem approach, the evolution of linearized perturbations in a stratified shear flow with rotation is studied. Here the resulting equation in time posed by using Fourier transform is solved for the Fourier amplitudes for two-layered unbounded shear flow and the initial distributions that are considered are a point source of the field of transverse velocity and density. Perturbation solutions are obtained for small values of Brunt Väisälä frequency and Rossby number. The velocity and density plots are drawn for different values of Brunt Väisälä frequency and Rossby number