

# **Effect of rotation on the Rayleigh-Benard Convection in nanofluid layer with vertical magnetic field and internal heat source**

## **ABSTRACT**

Effect of rotation on the onset of Rayleigh-Benard convection in a horizontal nanofluid layer with vertical magnetic field and internal heat source is investigated. Linear stability analysis based upon normal mode method is employed to find solution of the horizontal nanofluid layer bounded between free-free, rigid-free and rigid-rigid boundaries. Rayleigh number has been determined using the galerkin method. Graphs have been plotted to study the efficiency of rotation, magnetic field, internal heat source and other nanofluid parameters to the system.

**Keyword:** Rotation; magnetic field; Internal heat source; Nanofluid; Rayleigh-Benard convection