

# **Rayleigh-Bénard Convection in a Micropolar Nano fluid with Realistic Boundaries**

Disha Mohan Naik and S Pranesh

Centre for Mathematical Needs, Department of Mathematics, CHRIST (Deemed to be University), Bangalore, India

Abstract:

In this paper linear analysis of micropolar nano fluid on a Rayleigh – Bénard convection is investigated by considering the realistic boundaries. Linear analysis is performed using normal mode technique. The results of various parameters on the on set of convection is discussed using graphs. Based on the results obtained, the micropolar parameter and the coefficient of coupling between vorticity and spin effect have stabilized effects in the system.