

## **Dual solutions in MHD flow on a nonlinear porous shrinking sheet in a viscous fluid**

### **ABSTRACT**

In this paper, the problem of magnetohydrodynamic (MHD) flow of a viscous fluid on a nonlinear porous shrinking sheet is studied. The boundary layer partial differential equations are first transformed into an ordinary differential equation, which is then solved numerically by the shooting method. The features of the flow for various governing parameters are presented and discussed in detail. It is found that dual solutions only exist for positive values of the controlling parameter.

**Keyword:** Boundary layer; Dual solutions; Magnetohydrodynamic; Numerical solution; Shrinking sheet.