

Flow of Magnetohydrodynamic Micropolar Fluid Induced by Radially Stretching Sheets

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Z. Naturforsch. **66a**, 53 – 60 (2011); received March 5, 2010 / revised June 5, 2010

We investigate the flow of a micropolar fluid between radial stretching sheets. The magnetohydrodynamic (MHD) nonlinear problem is treated using the homotopy analysis method (HAM) and the velocity profiles are predicted for the pertinent parameters. The values of skin friction and couple shear stress coefficients are obtained for various values of Reynolds number, Hartman number, and micropolar fluid parameter.

Key words: Micropolar Fluid; Radial Stretching; Homotopy Analysis Solution;
Skin Friction Coefficient; Couple Stress Coefficient.