

Table of Contents

Preface

Analysis of Nonlinear Heat Transfer in Solids of Various Geometries with Variable Thermal Conductivity and Heat Source R.J. Moitsheki and O.D. Makinde	1
Analysis of Nonlinear Heat Transfer in a Cylindrical Solid with Two-Step Exothermic Kinetics and Radiative Heat Loss S. Tahiru and O.D. Makinde	17
Analysis of Blasius Flow of Hybrid Nanofluids over a Convectively Heated Surface A.T. Olatundun and O.D. Makinde	29
MHD Flow of Cu-Al₂O₃/Water Hybrid Nanofluid in Porous Channel: Analysis of Entropy Generation S. Das, R.N. Jana and O.D. Makinde	42
Cross Diffusion Impacts on Hydromagnetic Radiative Peristaltic Carreau-Casson Nanofluids Flow in an Irregular Channel M. Gnaneswara Reddy, B.C.P. Kumara and O.D. Makinde	62
Effects of Nonlinear Thermal Radiation and Second Order Slip on Casson Nanofluid Flow between Parallel Plates N.S. Shashikumar, M. Archana, B.C.P. Kumara, B.J. Gireesha and O.D. Makinde	84
Magneto-Nanofluid Dynamics in Convergent-Divergent Channel and its Inherent Irreversibility M.S. Alam, M.A.H. Khan and O.D. Makinde	95
Effect of Thermophoresis and Brownian Moment on 2D MHD Nanofluid Flow over an Elongated Sheet C. Sulochana, G.P. Ashwinkumar and N. Sandeep	111
Aligned Magnetic Field Effect on Radiative Bioconvection Flow Past a Vertical Plate with Thermophoresis and Brownian Motion K. Avinash, N. Sandeep, O.D. Makinde and I.L. Animasaun	127
Thermal Radiation Effect on 3D Slip Motion of Alcu-Water and Cu-Water Nanofluids over a Variable Thickness Stretched Surface P.M. Krishna, N. Sandeep, R.P. Sharma and O.D. Makinde	141
Unsteady Convective Flow of Hydrocarbon Magnetite Nano-Suspension in the Presence of Stretching Effects P. Ram, V.K. Joshi and O.D. Makinde	155
Unsteady Mixed Convection Flow of a Reactive Casson Fluid in a Permeable Wall Channel Filled with a Porous Medium O.D. Makinde and L. Rundora	166
Inherent Irreversibility in a Variable Viscosity Hartmann Flow through a Rotating Permeable Channel with Hall Effects A.S. Eegunjobi and O.D. Makinde	180
Natural Convection in a Non-Uniformly Heated Vertical Annular Cavity M. Sankar, S. Kiran, G.K. Ramesh and O.D. Makinde	189
Unsteady MHD Chemically Reacting and Radiating Mixed Convection Slip Flow Past a Stretching Surface in a Porous Medium A.S. Eegunjobi, O.D. Makinde and S. Jangili	200
Natural Convection near a Moving Vertical Plate with Ramped Heat and Mass Fluxes in the Presence of Thermal Radiation S. Das, R.N. Jana and O.D. Makinde	211
Effect of Convective Boundary Condition on MHD Carreau Dusty Fluid over a Stretching Sheet with Heat Source S.U. Mamatha, Mahesha, C.S.K. Raju and O.D. Makinde	233
Thermal Radiation Effect on Non-Newtonian Fluid Flow over a Stretched Sheet of Non-Uniform Thickness R.P. Sharma, K. Avinash, N. Sandeep and O.D. Makinde	242