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Kalidas Das, Nilankush Acharya, Prabir Kumar Kundu

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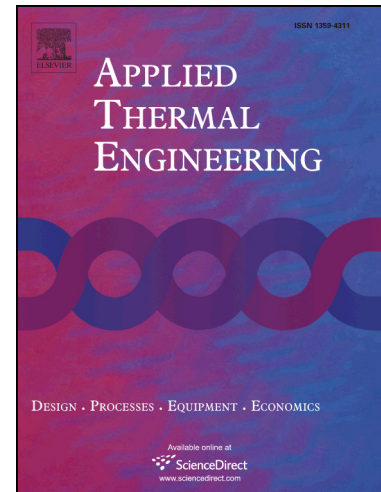
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The onset of nanofluid flow past a convectively heated shrinking sheet in presence of heat source/sink: A Lie group approach

Kalidas Das

Dept. of Mathematics, A.B.N.Seal College, Cooch Behar, PIN-736101, West Bengal, India,

Email: kd_kgec@rediffmail.com, Mob no. +919748603199

Nilankush Acharya

Dept. of Mathematics, Jadavpur University, Kolkata 700032, West Bengal, India,

Email: nilankushacharya@gmail.com, Mob no. +919474469850

Prabir Kumar Kundu

Dept. of Mathematics, Jadavpur University, Kolkata 700032, West Bengal, India,

Email: kunduprabir@yahoo.co.in, Mob no. +91943315434

Abstract: The influence of uniform heat source or sink of Cu-water and Ag-water nanofluid flow over a convectively heated shrinking sheet has been studied. Lie group technique has been applied to translate highly non-linear governing partial differential equations into ordinary differential equation and then solved numerically by RK-4 scheme with shooting technique. The consequence of relevant parameters on the flow province has been discussed by means of graphical and tabular approach considering both assisting and opposing flow. Our analysis explores that Cu-water achieves high temperature even though Ag has high thermal conductivity with the impact of shrinking ratio parameter. Also temperature and heat transfer rate of Cu-water rise significantly for surface convection parameter.

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