

# MHD Stagnation Point flow Towards an Exponentially Stretching Sheet with Prescribed wall Temperature and Heat Flux

Sayed Qasim Alavi<sup>1</sup> · Abid Hussanan<sup>1</sup> · Abdul Rahman Mohd Kasim<sup>1</sup> · Norhayati Rosli<sup>1</sup> · Mohd Zuki Salleh<sup>1</sup>

© Springer India Pvt. Ltd. 2017

**Abstract** The effects of thermal radiation on magnetohydrodynamic stagnation point flow



[Metadata, citation and similar papers at core.ac.uk](#)

Provided by UMP Institutional Repository

by using Keller-box method. Numerical results for the velocity and temperature fields are shown graphically for various material parameters. The evaluated results are also compared with previously published papers which show excellent agreement. It is found that the thermal boundary layer thickness increases with increasing the values of magnetic parameter. The solutions for the linear stretching sheet are also recovered. The momentum boundary layer thickness increases with increasing the values of magnetic parameter. The temperature decreases when Prandtl number and velocity ratio parameter are increased.

**Keywords** MHD · Thermal radiation · Stagnation point · Exponentially stretching sheet