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Comments on
"Effects of Variable Viscosity and Thermal Conductivity on Unsteady
MHD Flow of Non-Newtonian Fluid over a Stretching Porous Sheet"
by Gamal M. Abdel-Rahman
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by

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Short paper
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Several fundamental errors listed below were found in the paper of G. M. Abdel-Rahman.

- (1) Large parts of the Introduction and list of References were copied from the published paper by Prasad and Vajravelu [1].
- (2) Due to the copying from the published paper by Prasad and Vajravelu [1], the author mentioned in the Introduction that "the resulting equations are solved numerically by the Keller-Box method." While the equations solved numerically by using the sixth order Runge-Kutta integration accompanied with the shooting iteration scheme (see Numerical computations section).
- (3) The physical meaning of ε should be the thermal conductivity parameter, not small parameter as defined in Nomenclature .
- (4) Although the main aim of the above paper is to study the effects of variable viscosity (in spite of the author mentioned the effect of the variable viscosity parameter in Conclusion section, no viscosity parameter defined in the paper) and thermal conductivity (the thermal conductivity parameter $\varepsilon = 0$ in all figs. (2)-(12)), no discussions for these effects have been presented in this work.
- (5) The first term in the right hand side of eq. (2) " $-(1/\rho)(\partial/\partial y)[- \mu(x, t)(\partial u/\partial y)]^n$ " is wrong but should be " $-(1/\rho)(\partial/\partial y)[\mu(x, t)(-\partial u/\partial y)]^n$ ".
- (6) The fourth term in the right hand side of eq. (2) " $-(\nu/K)u$ " is wrong but should be " $-(\mu\phi/\rho K)u^n$ " where ϕ is the medium porosity (see [2]).
- (7) The fourth term in the right hand side of eq. (3) " $1/\rho c_p[\mu(x, t)(\partial u/\partial y)]^{n+1}$ " is wrong but should be " $[\mu(x, t)/\rho c_p](\partial u/\partial y)^{n+1}$ ".
- (8) The similarity variable η is wrong (because η has units $[\text{ms}^{-2}]$ but should be dimensionless).

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