

Erratum: “Study of Laminar Forced Convection of Radiating Gas Over an Inclined Backward Facing Step Under Bleeding Condition Using the Blocked-Off Method”

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There are three mistakes in typing the formula which are as follows:

- (1) On the right hand of Eq. (4), the radiative heat flux ($\nabla \cdot \mathbf{q}_r$) must be negative, but in the paper, it is positive. The correct form of Eq. (4) is as follows:

$$\frac{\partial}{\partial x}(\rho u c_p T) + \frac{\partial}{\partial y}(\rho v c_p T) = \kappa \left(\frac{\partial^2 T}{\partial x^2} + \frac{\partial^2 T}{\partial y^2} \right) - \nabla \cdot \mathbf{q}_r \quad (4)$$

- (2) In Eq. (15), S_{pi} must be multiply by $\beta \nabla$ (Beta · Volume). Equation (15) is a well known equation in radiative heat transfer and can be found in Ref. [13]. The correct form of this equation is as follows:

$$I_{pi} = \frac{|\xi_i| A_x I_{xi} + |\eta_i| A_y I_{yi} + \beta \nabla S_{pi}}{\beta \nabla + |\xi_i| A_x + |\eta_i| A_y} \quad (15)$$

- (3) In Eq. (23), in the second term on the right hand, τ (Tau) must be omitted which is related to the radiative Nusselt number. The correct form of this equation is as follows:

$$\text{Nu}_r = \text{Nu}_c + \text{Nu}_r = \frac{-1}{\theta_w - \theta_b} \frac{\partial \theta}{\partial Y} \Big|_{Y=0} + \frac{RC \cdot \theta_1 \cdot \theta_2}{\theta_w - \theta_b} q_r^* \quad (23)$$

Reference

- [13] Modest, M. F., 2003, *Radiative Heat Transfer*, Academic, San Diego, CA, Chap. 16.