Erratum: "Study of Laminar Forced Convection of Radiating Gas Over an Inclined Backward Facing Step Under Bleeding Condition Using the Blocked-Off Method" [ASME J. Heat Transfer, 2011, 133(7), p. 072702]

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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:

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

(2) In Eq. (15), S_{pi} must be multiply by $\beta\forall$ (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:

$$I_{p_i} = \frac{|\xi_i|A_x I_{xi} i + |\eta_i|A_y I_{yi} i + \beta\forall S_{pi}}{\beta\forall + |\xi_i|A_x + |\eta_i|A_y} \tag{15}$$

(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:

$$\mathrm{Nu}_t = \mathrm{Nu}_c + \mathrm{Nu}_r = \frac{-1}{\Theta_w - \Theta_b}\frac{\partial \Theta}{\partial Y}\bigg|_{Y=0} + \frac{RC\cdot\theta_1\cdot\theta_2}{\Theta_w - \Theta_b}q_r^* \tag{23}$$

Reference

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

