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Erratum

Erratum to: "Forced convection in a parallel plates channel with asymmetric heating" [Int. J. Heat Mass Transfer 47 (2004) 5609–5612]

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The author regrets that the above article contains an error, and he is grateful to Ryan Enright, Stokes Institute, University of Limerick, for pointing this out.

The paragraph containing Eqs. (13a,b) and (14) should replaced by the following.

The ratio of the boundary heat fluxes is given by

$$\frac{q_1''}{q_2''}=\frac{(\mathrm{d}T/\mathrm{d}y)_{y=0}}{(\mathrm{d}T/\mathrm{d}y)_{y=1}}=\frac{24\beta-Nu(6c_0+2c_1+c_2)}{24\beta+Nu(6c_0+4c_1+3c_2)} \tag{13}$$

and this equation can be solved for β to give

$$\beta=\frac{Nu[(6c_0+2c_1+c_2)q_2''+(6c_0+4c_1+3c_2)q_1'']}{24(q_2''-q_1'')}. \tag{14}$$

For any symmetric velocity profile (including slug flow and plane Poiseuille flow) this reduces to

$$\beta=\frac{Nu(q_2''+q_1'')}{4(q_2''-q_1'')} \tag{14*}$$

while for plane Couette flow the expression is

$$\beta=\frac{Nu(q_2''+2q_1'')}{6(q_2''-q_1'')} \tag{14**}$$

A consequential change is that Eqs. (17) and (19a,b) should now read

$$Nu=\frac{30q_1''-30q_2''}{6q_1''-q_2''} \tag{17}$$

and

$$Nu_1=\frac{15-15(q_2''/q_1'')}{8-6(q_2''/q_1'')-2(q_2''/q_1'')^2}$$
$$Nu_2=\frac{15-15(q_1''/q_2'')}{3-(q_1''/q_2'')-2(q_1''/q_2'')^2} \tag{19a, b}$$

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