



## Corrigendum

# Corrigendum to “Improved formulation of travelling fires and application to concrete and steel structures” [Structures 3 (2015) 250–260]



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There have been minor errors and misprints discovered in the equations 3, 5, 10, 11, and 26 of the published article. The misprinted versions are as follows:

$$T_{max} - T_{\infty} = 5.38 \left( \frac{\dot{Q}/r}{H} \right)^{2/3} \quad (3)$$

$$A_f = L \cdot L_t^* \cdot W \cdot \dot{Q} \quad (5)$$

$$T_{max}(x, t) = T_{\infty} + \frac{5.38}{H} \left( \frac{LL_t^* W \dot{Q}^{n/3}}{x + 0.5LL_t^* - \dot{x}_t} \right)^{2/3} \quad (10)$$

$$T_{max}(x, t) = T_{nf}, \text{ if } \begin{cases} T_{ff} > T_{nf}; \\ |x + 0.5LL_t^* - \dot{x}_t| \leq 0.5L_f. \end{cases} \quad (11)$$

$$A_2 = \int_{r_{x2}}^{r_2} T_{max}(r) dr = \int_{r_{x2}}^{r_2} \left( T_{\infty} + 5.38 \left( \frac{\dot{Q}/r}{H} \right)^{2/3} \right) dr$$

$$= T_{\infty}(r_2 - r_{x2}) + \frac{16.14\dot{Q}^{2/3}}{H} (r_2^{1/3} - r_{x2}^{1/3}) \quad (26)$$

$$r_0 = \left( \frac{5.38}{H(T_{nf} - T_{\infty})} \right)^{3/2} \quad (19) \text{ and } (23)$$

**The corrected versions should be as follows:**

- Equation 3 should be revised as:

$$T_{max} - T_{\infty} = 5.38 \frac{(\dot{Q}/r)^{2/3}}{H} \quad (3)$$

- Equation 5 should be revised as:

$$A_f = L \cdot L_t^* \cdot W \quad (5)$$

- Equation 10 should be revised as:

$$T_{max}(x, t) = T_{\infty} + \frac{5.38}{H} \left( \frac{LL_t^* W \dot{Q}^{n/3}}{|x + 0.5LL_t^* - \dot{x}_t|} \right)^{2/3} \quad (10)$$

- Equation 11 should be revised as:

$$T_{max}(x, t) = T_{nf}, \text{ if } \begin{cases} T_{ff} > T_{nf}; \\ |x + 0.5LL_t^* - \dot{x}_t| \leq 0.5LL_t^*. \end{cases} \quad (11)$$

- Equation 26 should be revised as:

$$A_2 = \int_{r_{x2}}^{r_2} T_{max}(r) dr = \int_{r_{x2}}^{r_2} \left( T_{\infty} + 5.38 \left( \frac{\dot{Q}/r}{H} \right)^{2/3} \right) dr$$

$$= T_{\infty}(r_2 - r_{x2}) + \frac{16.14\dot{Q}^{2/3}}{H} (r_2^{1/3} - r_{x2}^{1/3}) \quad (26)$$

- Equation 19 and 23 should be revised as:

$$r_0 = \dot{Q} \left( \frac{5.38}{H(T_{nf} - T_{\infty})} \right)^{3/2} \quad (19) \text{ and } (23)$$

Also, there has been an error noticed in one sentence in the Appendix B. “Using Alpert’s correlation function [29] the **near-field** temperatures over a certain distance” should be corrected to “Using Alpert’s correlation function [29] the **far-field** temperatures over a certain distance”.

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