C.02.01.A1 – Modelo de Mistura Reativa Ideal

Aplicação em FTAF – Finite Time Air-Fuel Otto Engine Model

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Padrões nos Cálculos:

$$\bar{c}_p(T) = a_1 + a_2 T + a_3 T^2 + a_4 T^3, \qquad\qquad T_{min} \leqslant T \leqslant T_{max} \qquad \rightharpoondown$$

$$\bar{c}_v(T) = b_1 + b_2 T + b_3 T^2 + b_4 T^3, \qquad\qquad T_{min} \leqslant T \leqslant T_{max} \qquad \rightharpoondown$$

$$\bar{u}(T) = \left(b_1 T + \frac{b_2 T^2}{2} + \frac{b_3 T^3}{3} + \frac{b_4 T^4}{4} \right)_{T_{ref}}^{T}, \qquad T_{min} \leqslant T \leqslant T_{max} \qquad \rightharpoondown$$

$$\bar{h}(T) = \left(a_1 T + \frac{a_2 T^2}{2} + \frac{a_3 T^3}{3} + \frac{a_4 T^4}{4} \right)_{T_{ref}}^{T} + \bar{R} T_{ref}, \qquad T_{min} \leqslant T \leqslant T_{max} \qquad \rightharpoondown$$

$$\bar{s}^{\circ}(T) = \left(a_1 \ln(T) + a_2 T + \frac{a_3 T^2}{2} + \frac{a_4 T^3}{3} \right)_{T_{ref}}^{T} + \bar{s}_{ref}^{\circ}, \qquad T_{min} \leqslant T \leqslant T_{max} \qquad \therefore$$

• Verificação de **limites**;   • Coef./func. **próprios**; e   • Produtos **matriciais**.

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