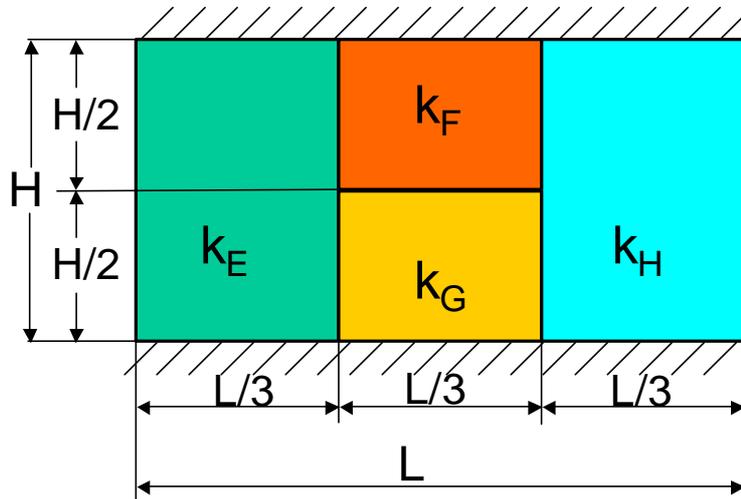


PARETE COMPOSITA SERIE-PARALLELO



$$R_e = (L/3)/(k_e \cdot H) \quad R_f = (L/3)/(k_f \cdot (H/2)) \quad R_g = (L/3)/(k_g \cdot (H/2)) \quad R_h = (L/3)/(k_h \cdot H)$$

$$R_{iso} = R_e + 1/(1/R_g + 1/R_f) + R_h$$

$$R_{adia} = 1/(1/((2 \cdot R_e) + R_g + (2 \cdot R_h))) + 1/((2 \cdot R_e) + R_f + (2 \cdot R_h))$$

Esempio:

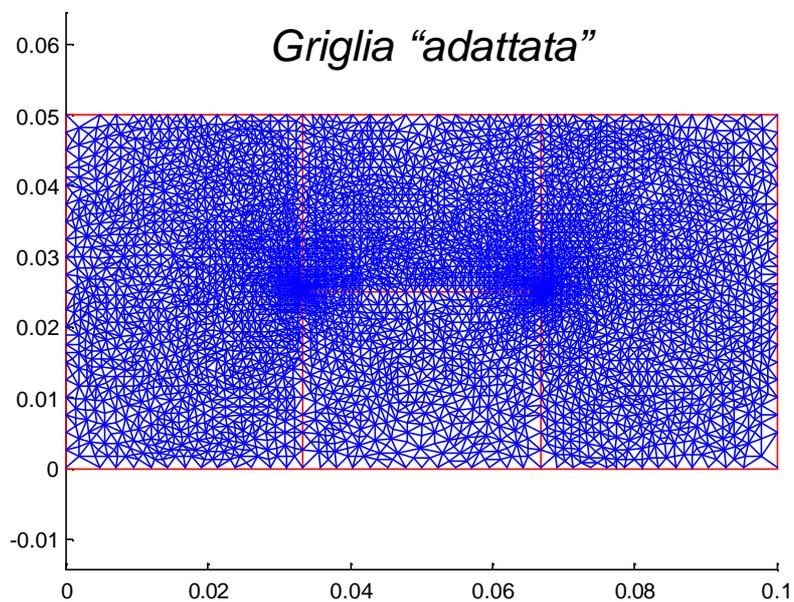
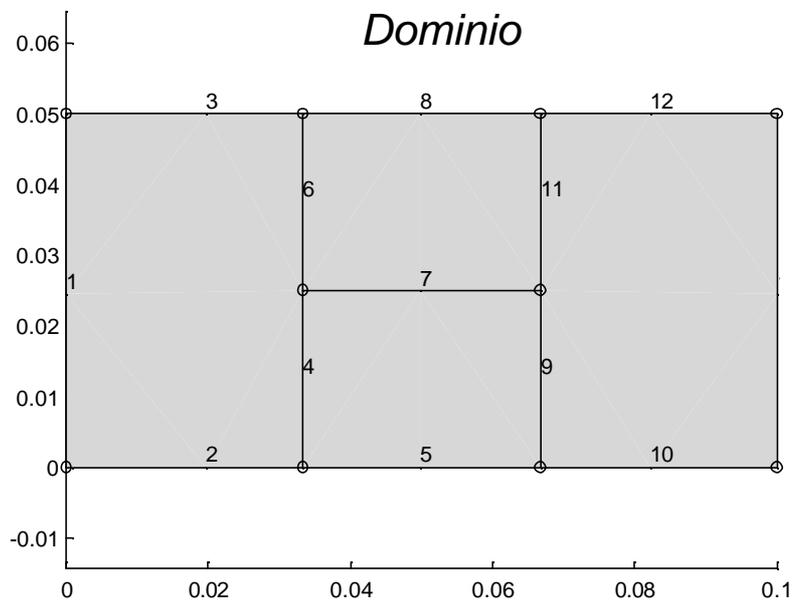
$$k_e = 25; \quad k_f = 5; \quad k_g = 100; \quad k_h = 25;$$
$$L = 0.1; \quad H = L/2$$

Otteniamo, con le due formule precedenti:

$$R_{iso} = 0.066 \text{ [K/W]} \quad R_{adia} = 0.091 \text{ [K/W]}$$

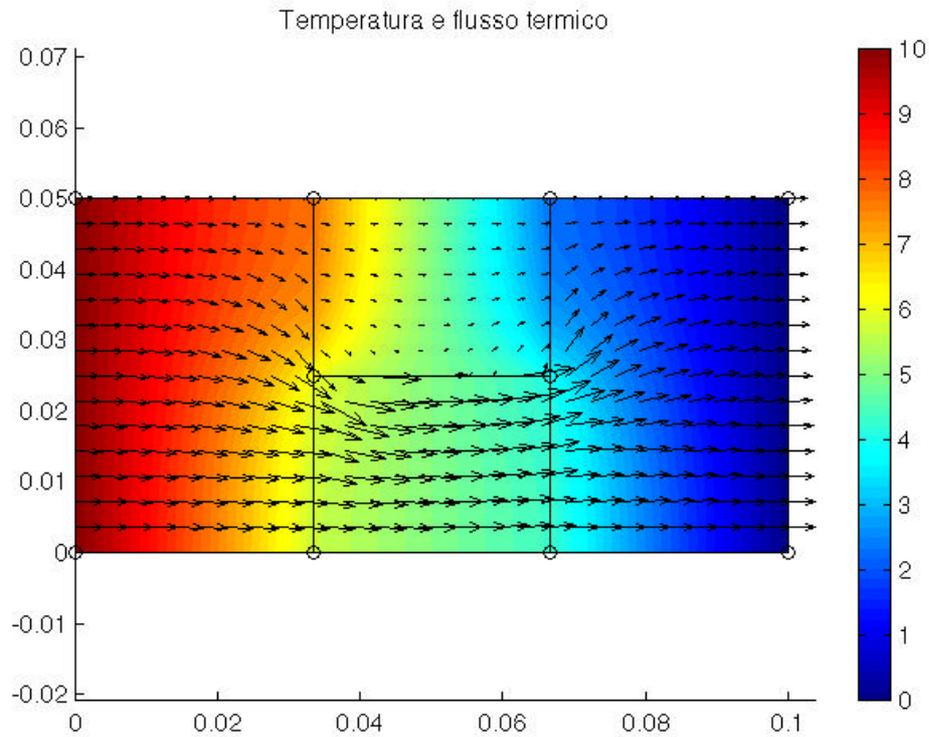
Vediamo la soluzione "esatta", ottenuta con il package **FEMLAB**®, evoluzione del Toolbox Matlab PDE.

PARETE COMPOSITA SERIE-PARALLELO



PARETE COMPOSITA SERIE-PARALLELO

Soluzione



$$R_t = 0.077 \text{ [K/W]}$$