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$$\theta = - \left(\frac{\frac{\partial U}{\partial z}}{\sqrt{\left(\frac{\partial U}{\partial x}\right)^2 + \left(\frac{\partial U}{\partial y}\right)^2}} \right)$$

$$M \quad \begin{matrix} M_x & M_s & i_s & M_z & M_s & i_s \\ & & i_s & & & \\ x & & z & & & \end{matrix}$$

$$m_s \quad SM_s$$

$$\left. \begin{aligned} \frac{\partial U}{\partial z} &= \frac{\mu m_s}{\pi (\Delta x + \Delta z)} \left[(\Delta z - \Delta x) \quad i_s + \Delta x \Delta z \quad i_s \right] \\ \frac{\partial U}{\partial x} &= -\frac{\mu m_s}{\pi (\Delta x + \Delta z)} \left[(\Delta z - \Delta x) \quad i_s + \Delta x \Delta z \quad i_s \right] \end{aligned} \right\}$$

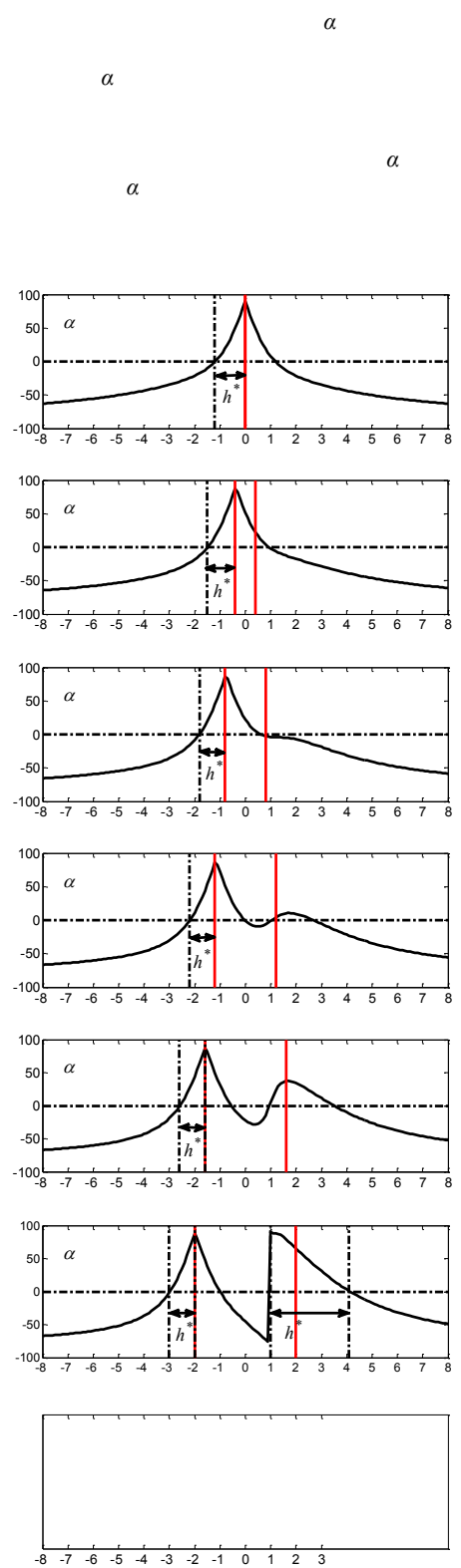
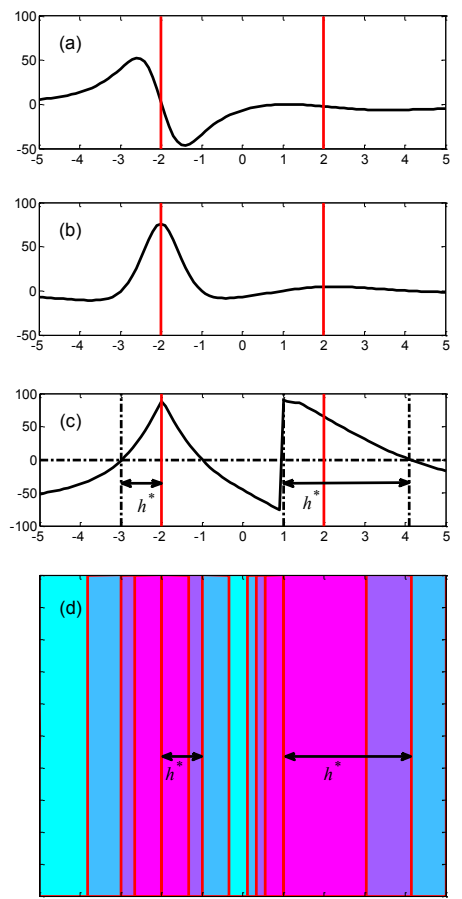
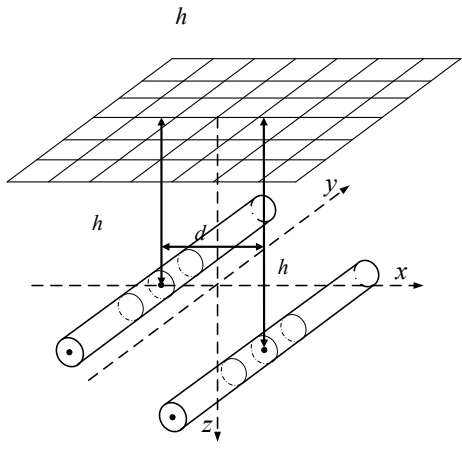
i_s

$$\left. \begin{aligned} \frac{\partial U}{\partial z} &= \frac{\mu m_s (\Delta z - \Delta x)}{\pi (\Delta x + \Delta z)} \\ \frac{\partial U}{\partial x} &= -\frac{\mu m_s}{\pi (\Delta x + \Delta z)} \end{aligned} \right\}$$

$$\theta = - \left(\frac{\Delta z - \Delta x}{|\Delta x \Delta z|} \right)$$

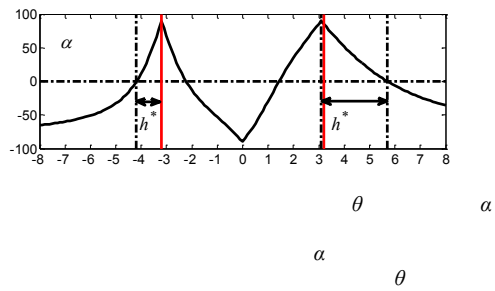
x

$x \quad z$



$h \quad h \quad h \quad h$
 h
 α
 d

$$\alpha = \frac{d}{h}$$



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