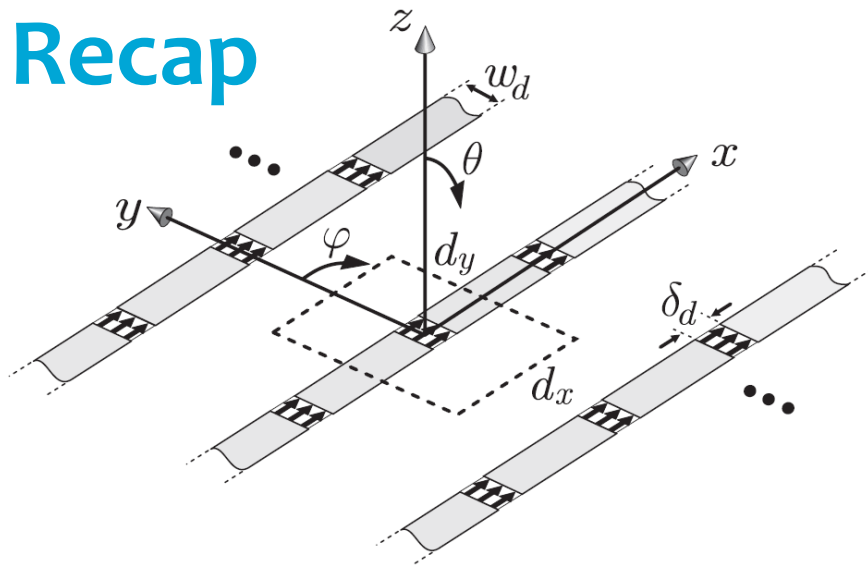# Recap

$$i(x) = \frac{1}{d_x} \sum_{m_x=-\infty}^{\infty} \frac{-V_0 \operatorname{sinc}(k_{xm}\delta_d/2)}{D_\infty(k_{xm})} e^{-jk_{xm}x}$$
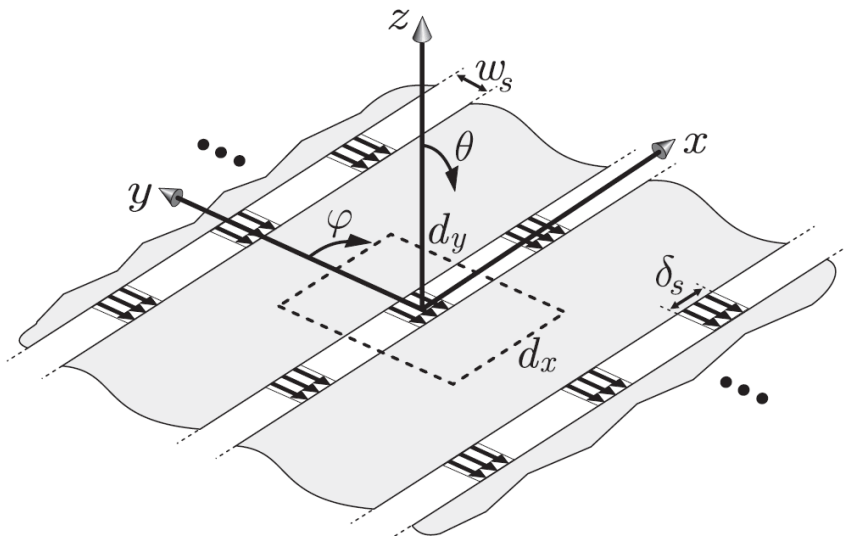
$$Y_{a,\text{dipole}} = \frac{1}{d_x} \sum_{m_x=-\infty}^{\infty} \frac{-\operatorname{sinc}^2(k_{xm}\delta_d/2)}{D_\infty(k_{xm})}$$

$$D_\infty(k_x) = \frac{1}{d_y} \sum_{m_y=-\infty}^{\infty} G_{xx}^{EJ}(k_x, k_{ym}) J_0\left(\frac{k_{ym}w_d}{2}\right)$$

$$k_{xm} = k_{x0} - \frac{2\pi m_x}{d_x} \qquad k_{ym} = k_{y0} - \frac{2\pi m_y}{d_y}$$

Home Assignment

Derive similar expressions for slots

$$v(x) = ?$$

$$Z_{a,\text{slot}} = ?$$

$$D_{\infty,\text{slot}}(k_x) = ?$$

Needed for Matlab session on next lecture