

PTC3314 - Ondas e Linhas

4º Exercício de Simulação Computacional

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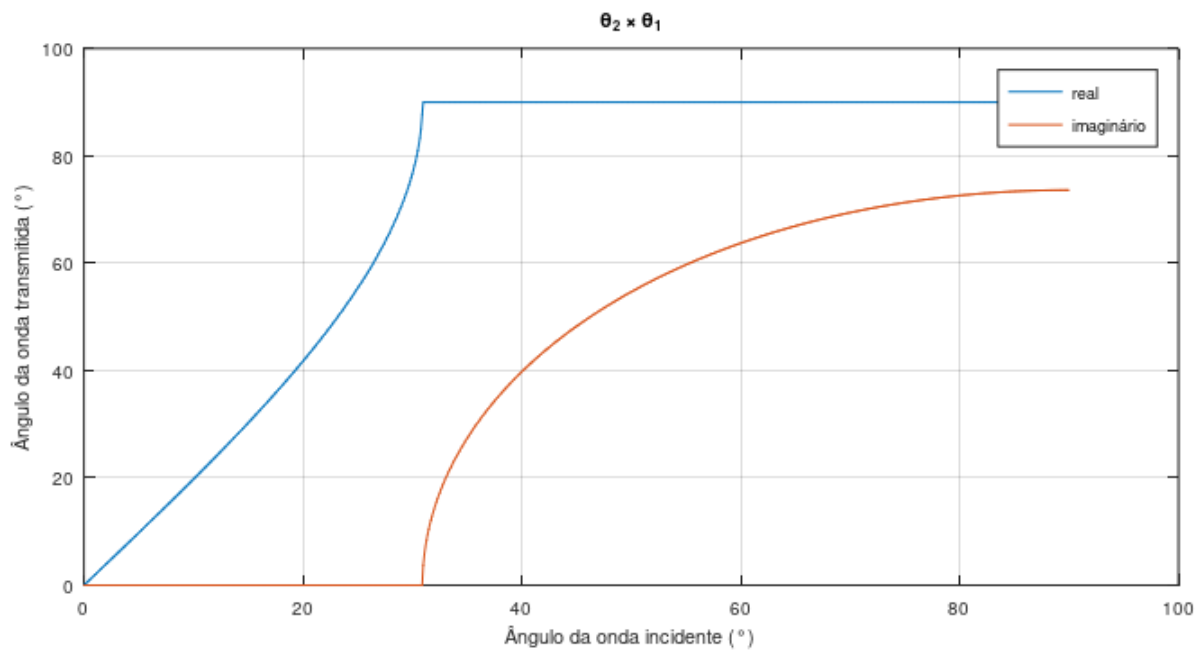
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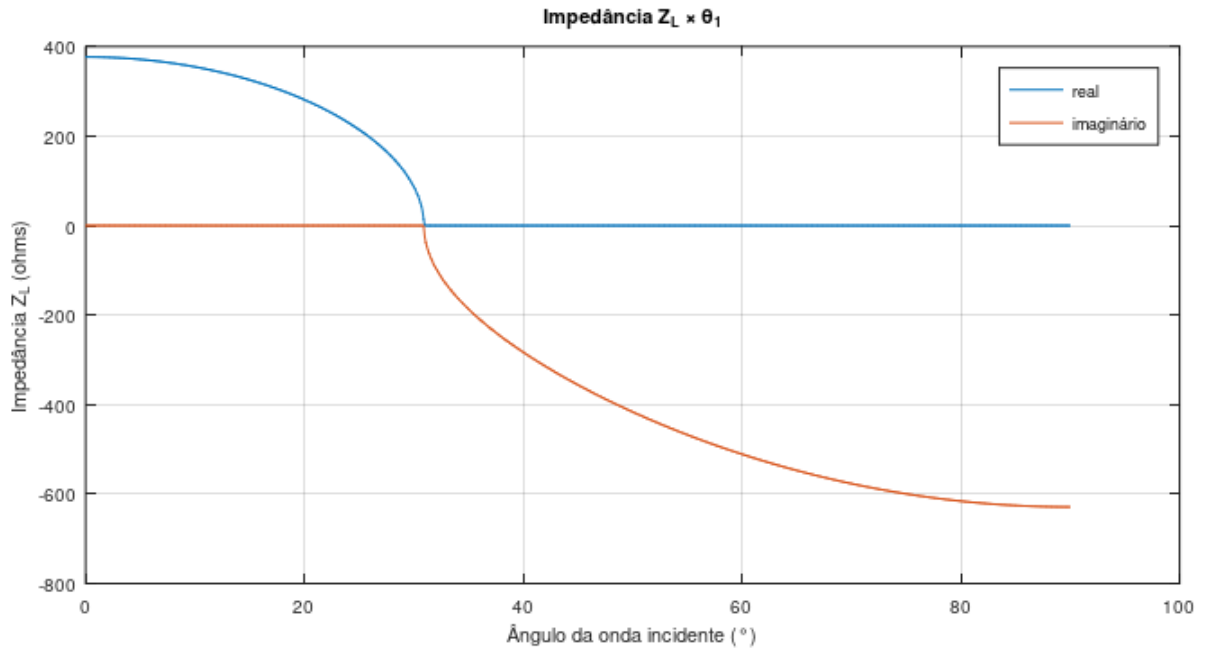
Turma 02 – Grupo B

08 de Dezembro de 2024

a) $\theta_c = 30,92641^\circ$



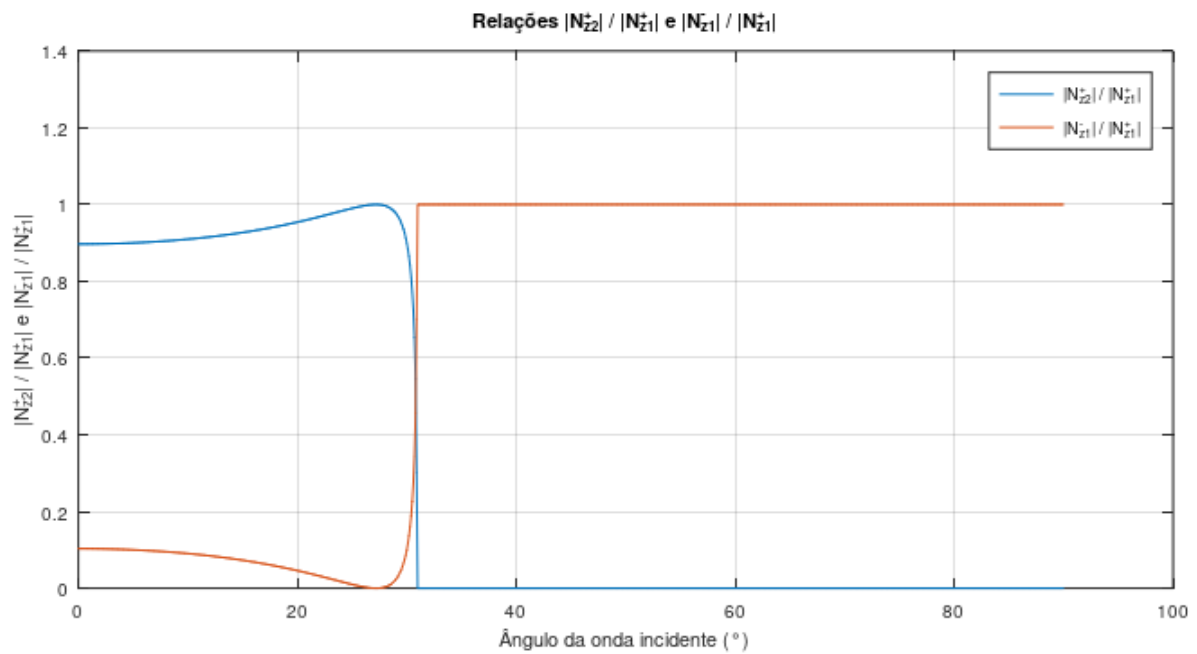
b) $Z_L(0^\circ) = 376,73 \, \Omega$
 $Z_L(\theta_c) = 0,0 \, \Omega$
 $Z_L(90^\circ) = -j628,82 \, \Omega$



c) $\theta_p = 27,2^\circ$

Potência transmitida: $\left. \frac{|N_{z2}^+|}{|N_{z1}^+|} \right|_{\theta_i=0^\circ} = 0,89692$ $\left. \frac{|N_{z2}^+|}{|N_{z1}^+|} \right|_{\theta_i=\theta_p} = 1$ $\left. \frac{|N_{z2}^+|}{|N_{z1}^+|} \right|_{\theta_i=\theta_c} = 0$

Potência refletida: $\left. \frac{|N_{z1}^-|}{|N_{z1}^+|} \right|_{\theta_i=0^\circ} = 0,10308$ $\left. \frac{|N_{z1}^-|}{|N_{z1}^+|} \right|_{\theta_i=\theta_p} = 0$ $\left. \frac{|N_{z1}^-|}{|N_{z1}^+|} \right|_{\theta_i=40^\circ} = 1$



d) $|\dot{H}_y(z=0)| = 0,37231 \text{ mA}_{ef}/\text{m}$
 $|\dot{H}_y(z=5\text{cm})| = 0,089878 \text{ mA}_{ef}/\text{m}$

