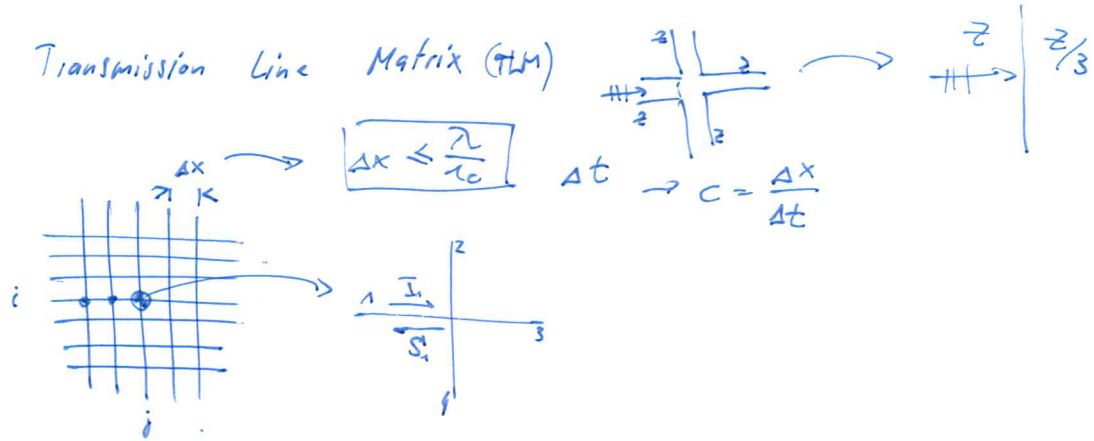


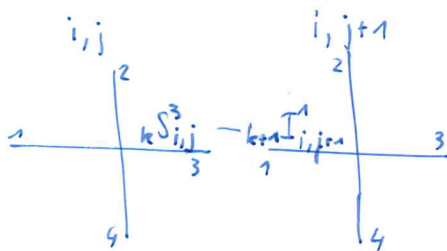
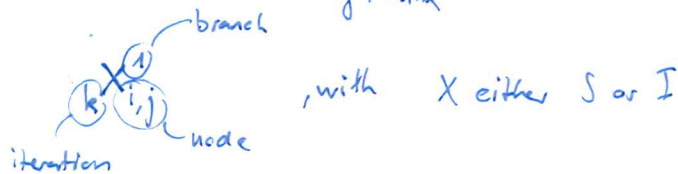
Technical Acoustic - Assignment 7

Transmission Line Matrix (TLM)



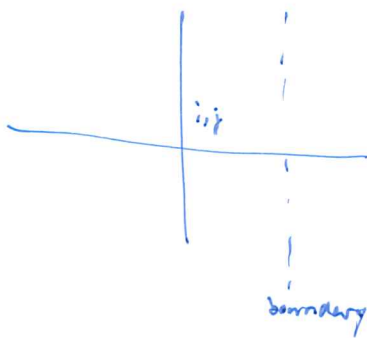
$$\begin{pmatrix} S_1 \\ S_2 \\ S_3 \\ S_4 \end{pmatrix} = \begin{pmatrix} -1/2 & & & \\ & 1/2 & & \\ & & 1/2 & \\ & & & -1/2 \end{pmatrix} \begin{pmatrix} I_1 \\ I_2 \\ I_3 \\ I_4 \end{pmatrix}$$

Scattering Matrix



$$I_{i,j}^4 = S_{i,j}^2$$

Boundary Conditions:



$$I_{i,j}^3 = R S_{i,j}^3$$