An example

$$\alpha_1$$

$$\alpha_2$$

$$\alpha_3$$

$$\beta_1$$

$$\beta_2$$

$$\begin{bmatrix} 0 & 1 \\ 1 & 0 \end{bmatrix}$$

$$\begin{bmatrix} 0 & 1 \\ 1 & 0 \end{bmatrix}$$

Consider the function $\Psi(\lambda) = [\psi_+(x, t; \lambda), \psi_-(x, t; \lambda)]$.

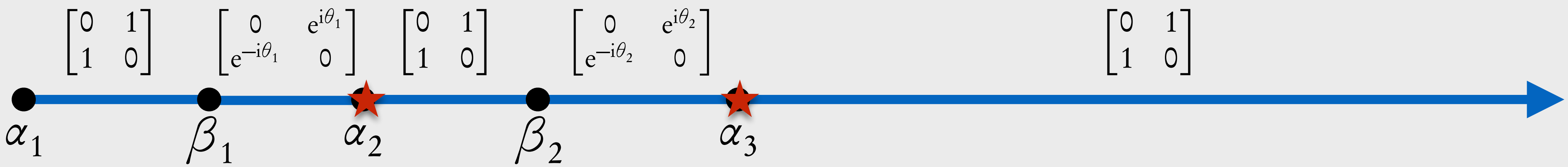
$$\begin{bmatrix} 0 & e^{i\theta_1} \\ e^{-i\theta_1} & 0 \end{bmatrix}$$

$$\begin{bmatrix} 0 & e^{i\theta_2} \\ e^{-i\theta_2} & 0 \end{bmatrix}$$

$$\check{\Psi}(\lambda)=\left[\frac{\psi_{+}(x,t;\lambda)}{\tilde{\psi}_{+}(x,t;\lambda)},\ \frac{\psi_{-}(x,t;\lambda)}{\tilde{\psi}_{-}(x,t;\lambda)}\right]$$

An example

Consider the function $\Psi(\lambda) = [\psi_+(x,t;\lambda), \psi_-(x,t;\lambda)]$.



$$\check{\Psi}(\lambda) = \left[\frac{\psi_+(x,t;\lambda)}{\tilde{\psi}_+(x,t;\lambda)}, \frac{\psi_-(x,t;\lambda)}{\tilde{\psi}_-(x,t;\lambda)} \right]$$

A normalized RHP

$$M(\lambda) = \check{\Psi}(\lambda) G(\lambda), \quad M(\lambda) = [1,\, 1](1 + o(1)).$$