$$\begin{split} \vec{\lambda} &= S^{-1}(\vec{\mu}_A - \vec{\mu}_B) \\ S^{-1} &= \begin{pmatrix} 0.182 & -0.116 \\ -0.116 & 0.256 \end{pmatrix} \\ \vec{\lambda} &= (-0.255; 0.253)^T \\ \vec{e}_{\lambda} &= (-0.71; 0.70)^T \end{split}$$