

$$\begin{array}{ccc}
 \rho & \xrightarrow{\mathbf{y}} & T(\rho) \\
 C^{-1} \downarrow & & \downarrow C^{-1} \\
 [\rho]_B & \xrightarrow{D} & [T(\rho)]_B
 \end{array}$$

$$C[\rho]_B = \rho$$

$$[\rho]_B = C^{-1}\rho$$

$$D = C^{-1}\mathbf{y}C$$

$$\mathbf{y} = CDC^{-1}$$