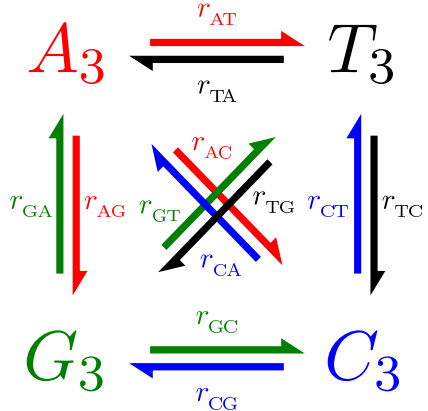




Q =

To base:

From base:

$$Q = \begin{matrix} & \begin{matrix} T & C & A & G \end{matrix} \\ \begin{matrix} T \\ C \\ A \\ G \end{matrix} & \begin{pmatrix} - & r_{TC} & r_{TA} & r_{TG} \\ r_{CT} & - & r_{CA} & r_{CG} \\ r_{AT} & r_{AC} & - & r_{AG} \\ r_{GT} & r_{GC} & r_{GA} & - \end{pmatrix} \end{matrix}$$