

$$\langle \hat{O} \rangle = \frac{\langle \Psi_T | e^{-\Theta \hat{H}/2} \hat{O} e^{-\Theta \hat{H}/2} | \Psi_T \rangle}{\langle \Psi_T | e^{-\Theta \hat{H}} | \Psi_T \rangle}$$