A dual probe for the EQL

From the organization of eigenstates in the TN from UV to IR we can obtain the complete 1e Greens function

$$G(\tau) = \begin{pmatrix} G(k\sigma) & G(k\sigma, k'\sigma') & \dots \\ G(k\sigma, k'\sigma') & G(k'\sigma') & \dots \\ \vdots & \ddots & \end{pmatrix}$$

And therefore obtain the Self energy matrix $\Sigma(\tau) = G^{-1}(\tau) - G_0^{-1}(\tau)$

$$|\Psi(\tau)\rangle = \sum_{\phi} \lambda_\phi |a_\phi\rangle |b_\phi\rangle$$

From the Schmidt decomposition of the TN states we can obtain the entanglement features