Get largest eigenvalue as function of $k, n$, $(n \text{ only})$. Take second derivative.

How does bit-flip relate to decoherence model?

$$
\begin{pmatrix}
\cos k & \exp(\text{i}k) \\
\exp(\text{i}k) & \cos k \\
\end{pmatrix}
$$

$$\det(I - 2z \mathbb{E}_{k,k'}) = 0$$

Use implicit differentiation to get $\text{ev} \text{al} \text{ue}$ of derivatives

**Calculate**

**Mixing time**

**Markovian**

Chapman paper is about trace preserving operators $L_{XX}$ and $L_{XX}$.