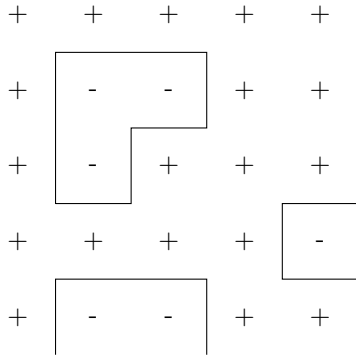


0.1. Heat Kernel Version of the Index Theorem.

$$\text{index}(\mathcal{D}) = \text{Trace}[(-1)^F e^{-\beta H}]$$

0.2. Ising Model.



$$Z = \sum_{\phi(x)=\pm 1} e^{\beta \sum_{\langle x,y \rangle} \phi(x)\phi(y)}$$

0.3. Effective Field Theory.

