Ising model in 1D

$$H = -J \sum_{<i,j>} S_i^z S_j^z$$

Partition function / Path integral

$$Z = \sum \langle x | e^{-\beta H} | x_1 \rangle \dots \langle x_N | e^{-\beta H} | x \rangle$$

Quantum spin in 0D

$$H = \frac{\Delta}{2} \sigma^x$$