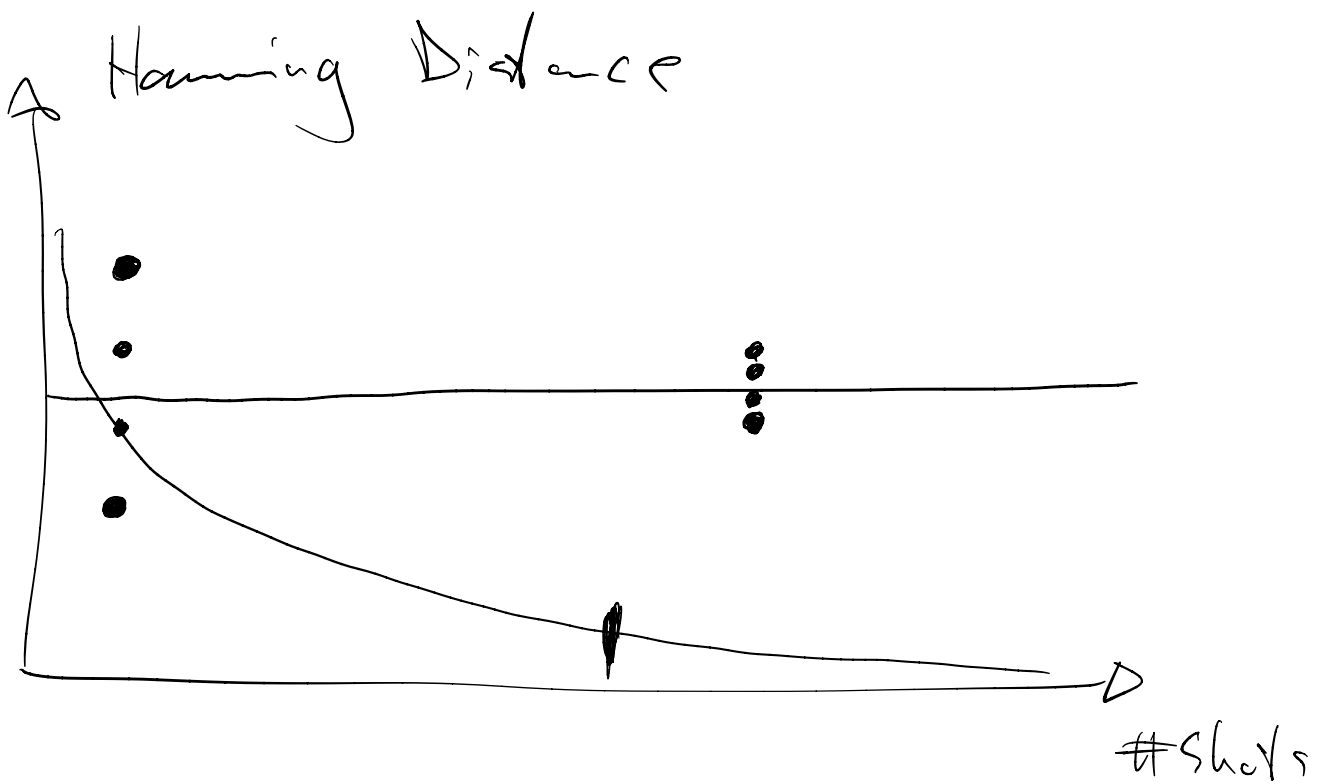


## Hamming Distance



# Qiskit

circuit = n\_local (\*args)



- n\_qubits
- > - entanglement\_strategy
- > - rotation\_gates

## First Steps

- Collection of different variational circuit architectures
  - Besides the number of layers, which circuits are there? Different entanglements, different rotations, ...
- Check Hellinger Distance in dependence of number of shots on noisy device (or simulation) for different circuits and compare
  - How different are circuits (2 vs. 20 layers?)
  - How does the intensity of noise play a role?
- Correlation of Hellinger distance with standard deviation of Hamming distance
  - Plots for multiple example circuits of both metrics in dependence on the number of shots
  - Multiple different circuits for better verification