## **Supermassive Black Holes**

• English Name: Supermassive Black Holes

## • Key for Quantum Circuits:

Supermassive black holes are ideal for exploring non-local connections and hyperdimensional topologies. Mathematical models derived from Riemann tensors and string theory can be used to build entangled quantum channels.

The black hole entropy (related to the Bekenstein-Hawking theory) can be used to calculate the information transmission capacity of a quantum circuit.

# • Suggested Application:

Simulate quantum portals or massive information transport systems.

#### **Neutron Stars**

• Spanish Name: Estrellas de Neutrones

### • Key for Quantum Circuits:

These stars contain ultra dense matter, which could simulate highly compressed quantum states, ideal for creating Bose-Einstein condensates or exotic quantum systems.

Models inspired by their internal structure (neutron and proton degenerate layers) can be applied to the design of multi-layer quantum architectures.

## • Suggested Application:

Design quantum circuits that leverage dense configurations and high-pressure quantum simulations.

#### **Magnetars**

• Spanish Name: Magneto Estrellas or Magnetars

#### • Key for Quantum Circuits:

Their extreme magnetic fields can inspire the creation of protected topological qubits that are resistant to decoherence.

You can also explore how charged particles behave in high-energy channels within these magnetic fields.

#### • Suggested Application:

Design superconducting quantum channels and protect quantum information from loss of coherence.