Connection to Loop Quantum Gravity
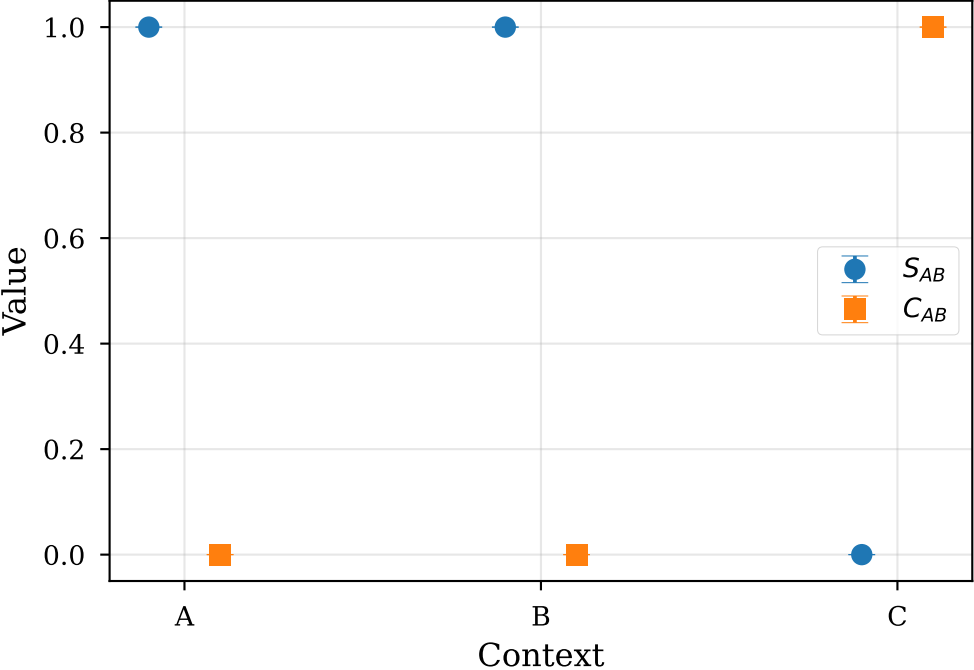
Spin Network Analogy

Conceptual diagram
to be created

Entanglement Properties Comparison

Property	Context None/A/B	Context C
S_{AB}	1 bit	0 bits
C_{AB}	0	1
State Type	Mixed	Pure
LQG Analog	No bridge	With bridge

Statistical Validation (n=100)

Legend:
- S_{AB}
- C_{AB}

X-axis: Context (A, B, C)
Y-axis: Value (0.0 to 1.0)

Key Insight:
Context C creates a pure entangled state
between A and B (C_{AB} = 1),
but with zero entropy because it's pure.

This mirrors how bridge insertion in LQG
creates gauge-invariant singlet channels.