

Figure 1 is a line graph showing the relationship between the Quantum Tangle Number (QTN) and the number of qubits ( $n$ ). The x-axis represents the number of qubits ( $n$ ) from 1 to 10, and the y-axis represents the QTN value from 0 to 1.0. Seven curves are plotted for different QTN values: QTN=0.3 (green squares), QTN=0.2 (cyan inverted triangles), QTN=0.1 (orange diamonds), QTN=0.05 (brown crosses), QTN=0.02 (blue plus signs), QTN=0.01 (red triangles), and QTN=0 (black circles). All curves show an increasing trend as  $n$  increases, with higher QTN values resulting in higher QTN values for a given  $n$ .

