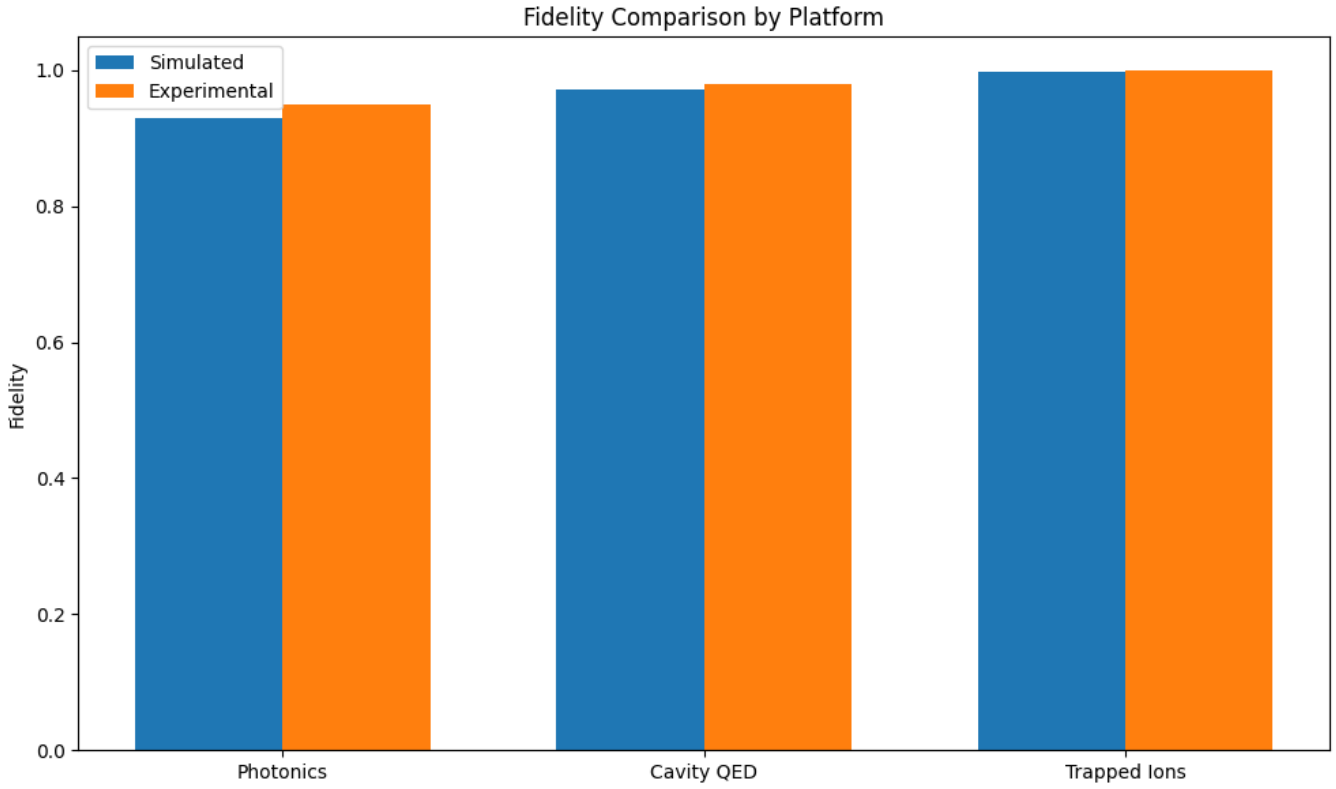
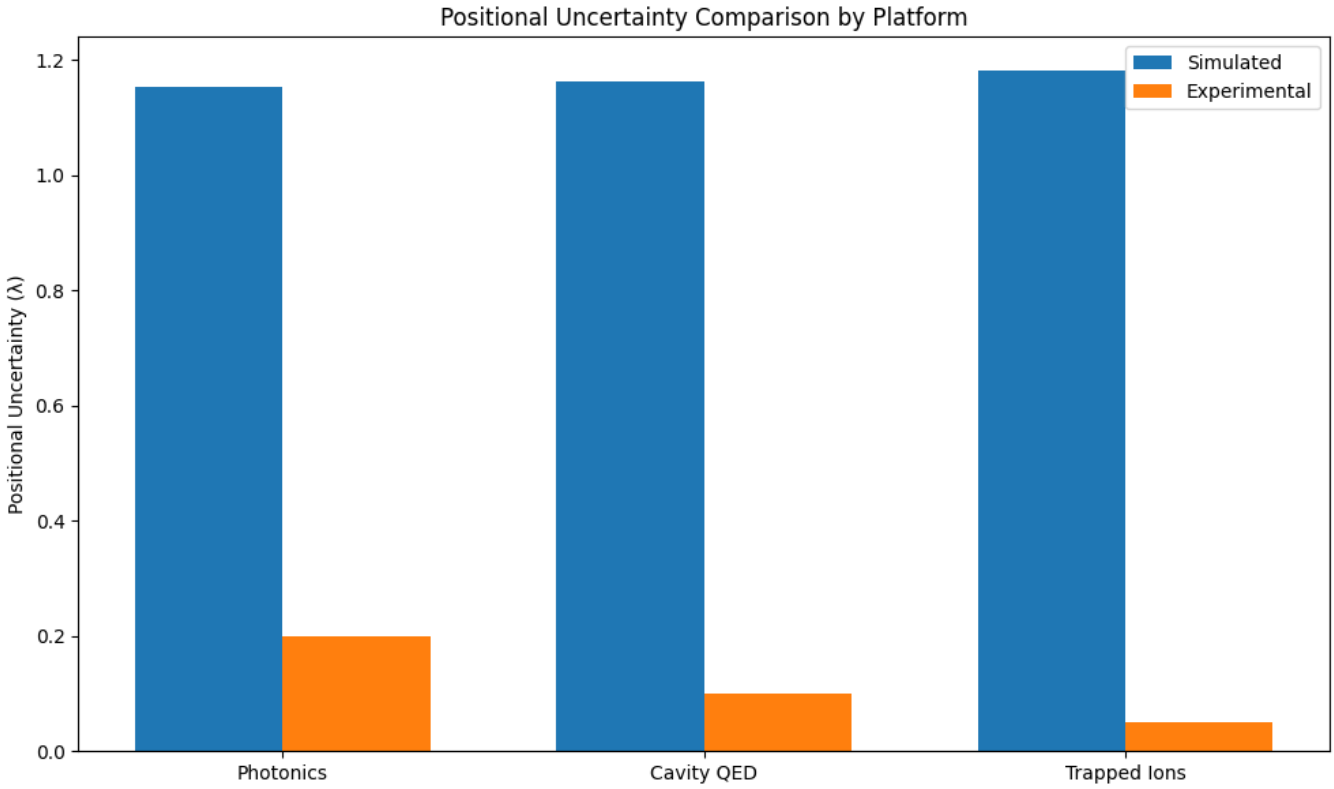
Quantum Hardware Comparative Analysis

1. Comparative Analysis Table

Platform	Sim. Fidelity	Exp. Fidelity	Sim. Pos. Uncertainty	Exp. Pos. Uncertainty
Photonics	0.9287	0.9500	1.1521	0.2000
Cavity QED	0.9706	0.9800	1.1627	0.1000
Trapped Ions	0.9985	0.9990	1.1805	0.0500

2. Performance Visualization




Positional Uncertainty Comparison by Platform
Simulated
Experimental
Positional Uncertainty (λ)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Photonics
Cavity QED
Trapped Ions

3. References

[1] Photonics: Knill, E., Laflamme, R., & Milburn, G. J. (2001). A scheme for efficient quantum computation with linear optics. Nature, 409(6816), 46-52. (DOI: 10.1038/35051009)

[2] Cavity QED: Reiserer, A., & Rempe, G. (2015). Cavity-based quantum networks with single atoms and optical photons. Reviews of Modern Physics, 87(4), 1379-1418. (DOI: 10.1103/RevModPhys.87.1379)

[3] Trapped Ions: Cirac, J. I., & Zoller, P. (1995). Quantum Computations with Cold Trapped Ions. Physical Review Letters, 74(20), 4091-4094. (DOI: 10.1103/PhysRevLett.74.4091)