6.2 Experimental Anchors

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1 Experimental Anchors

Unified Configuration Theory connects with the empirical domain through hallmark quantum experiments. These experiments serve not only as validation points, but as geometric manifestations of configuration behavior.

Key phenomena include:

- **Tunneling resonances in nanoscale systems** — modeled as morphing flow across curvature barriers.
- **Phase interference patterns and contextual sensitivity** — explained via overlapping morphing trajectories and curvature modulation.
- **Measurement probabilities and collapse statistics** — reframed as context-induced fixation or collapse within configuration space.

These effects serve as empirical benchmarks for validating and refining geometric intuitions. UCT provides a reproducible framework for interpreting experimental outcomes as configuration dynamics, enabling new predictions and guiding experimental design.