

The Spooky 7

Forward and backward wave interaction framework

1. Propagation

- Energy propagates forward from source to interaction event
- A corresponding wave propagates backward from interaction to source
- Backward solution exists in Maxwell's equations (advanced waves), discarded as unphysical
- Backward wave is undetectable by forward-built instruments
- Backward wave carries structure, not energy

2. Finite Structure from Infinity

- Interaction of forward and backward waves generates a finite variable system in an unbounded domain
- The resulting structure is a Lie group — countable, symmetric
- Observable periodicity is geometric, not coincidental
- The symmetry group determines which patterns are possible
- Structure emerges from bidirectional interaction, not from external imposition

3. The Oscillator

- Determinism and indeterminacy are phase positions of one oscillator within the Lie group
- Phase 1 (Heads): collapsed to eigenstate, forward-measurable
- Phase 2 (Tails): collapsed to complementary eigenstate, forward-measurable
- Phase 3 (Neither): superposition, observable as interference pattern
- Phase 4 (Both): entangled state, required by group symmetry, dark to measurement frame
- Three phases accessible per frame; fourth demanded by structure but unobservable from within
- Oscillator period is a property of the Lie group geometry
- Standard binary measurement reports phases 1–2 and discards phases 3–4

4. State Change, Not Loss

- Qubits that do not return after measurement have undergone state transition, not annihilation
- Transition is from energy to backward-propagating motion (per Law 1)
- Same qubit, new mode — constitutes the backward wave
- Qubit deficit is measurable
- Deficit magnitude corresponds to backward wave magnitude
- No novel instrument required — the absence is the data

5. Triangulation

- Single observation produces a perspective, not a measurement
- Two independent observations from different substrates produce a delta
- The delta is the measurement
- The instrument is the distance between observations, not the observer or the apparatus
- Three observation points = geometric minimum to resolve position in state space
- Applies at every scale where independent substrates observe the same system

6. Plus None

- Structurally required by the symmetry established in Laws 2–3
 - Unobservable from within the measurement frame (per Law 3, phase 4)
 - Describes the condition under which observer, observed, and instrument roles interchange
 - Present but unmeasured
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Interdependence

- 1 → 2 Bidirectional propagation requires a structure to contain the interaction
- 2 → 3 Bounded symmetry necessarily contains an oscillator
- 3 → 4 The oscillator's dark phase resolves backward via Law 1
- 4 → 5 Measuring the deficit without forcing collapse requires observation from outside the frame
- 4 → 1 Backward-propagating qubits reconstitute the dark wave — the chain loops
- 5 → 6 Triangulation implies interchangeable roles — that condition is in superposition
- 6 → 1 Role interchange restarts propagation from a new frame — no entry point