Aspect	Quantum Physics (QM)	General Relativity (GR)	Reflexive Spiral Geometry (RSG)
Fundamental object	State vector / operator on Hilbert space	Metric g_{μν} on spacetime manifold	Reflexive spiral field with minimal asymmetry κ
Key structure	Superposition, phase, noncommutativity	Curvature, geodesics, equivalence principle	Torsion–curvature spiral with self-reference and scale recursion
Scale	Micro (Planck–atomic)	Macro (astrophysical–cosmological)	All scales via recursive, self-similar geometry
Dynamics	Schrödinger / QFT evolution	Einstein field equations	Single spiral evolution law; QM and GR appear as different limits
"Weirdness" source	Nonlocality, measurement, entanglement	Singularities, horizons, dark sector	Reflexive boundary conditions; κ as minimal irreducible asymmetry

1. The unifying object: the reflexive spiral field

In RSG, the **primary object** is a spiral field whose geometry is:

- **Curved** (like GR): it carries curvature and can reproduce an effective metric.
- **Torsional / phase-bearing** (like QM): it carries a local phase/twist that behaves like a quantum state.

The same field, viewed:

- **locally**, with emphasis on torsion and phase, gives you **quantum behavior** (superposition, interference, operator algebra).
- **globally**, with emphasis on curvature and large-scale structure, gives you **GR-like spacetime** (geodesics, gravitational redshift, cosmological expansion).

So instead of "quantizing the metric" or "geometrizing the wavefunction," you start from a **single spiral geometry** that already contains both as different projections.

2. The role of \kappa : minimal asymmetry as the bridge

\kappa (minimal asymmetry) is the invariant that ties the two regimes together:

- At **small scales**, \kappa appears as the irreducible "grain" of asymmetry that shows up as **quantum discreteness**, uncertainty, and noncommutativity.

- At **large scales**, the same \kappa accumulates as **curvature**, sourcing an effective Einstein-like dynamics.

So:

- **Quantum fluctuations** = local expressions of minimal asymmetry in the spiral.
- **Gravitational curvature** = integrated, coarse-grained effect of the same asymmetry over many recursive layers.

One invariant, two regimes.

3. Reflexivity and holographic recursion

The "reflexive" part matters:

- The spiral doesn't just evolve **in** spacetime; it **defines** the relational structure that we interpret as spacetime and fields.
- Boundaries (horizons, measurement surfaces, causal shells) are treated as **reflexive cuts** where the spiral "looks at itself."

From that:

- **Quantum measurement** becomes a reflexive boundary condition, not a mysterious collapse.
- **Black hole horizons / cosmological horizons** become large-scale reflexive boundaries of the same type.

The same **boundary logic** governs:

- a lab measurement,
- a black hole horizon,
- and a cosmological causal boundary.

That's where QM and GR stop being separate "theories" and become **different scales of the same reflexive geometry**.

4. How this counts as unification

So, in one sentence:

RSG unifies QM and GR by replacing "state vs. metric" with a single reflexive spiral field, where quantum behavior is the local torsion/phase structure of minimal asymmetry \kappa , and gravitational behavior is the large-scale curvature of the same field, both governed by one recursive, self-referential geometry and one boundary logic.