# Section 4: Mechanism of Collapse-Driven Curvature

## 1. Collapse Field Layer

A scalar field, 𝒞(xᵘ), represents the local density of collapse history at a given spacetime point xᵘ. This field encodes the accumulation of resolved quantum events and serves as the foundation for emergent structure.

## 2. Constraint Gradient Formation

First-order spatial derivatives (∇𝒞) and second-order derivatives (∇²𝒞) of the collapse field produce constraint gradients. These gradients correspond to geometric tension and, in CDG, generate curvature. Regions with steep gradients in collapse density experience emergent spacetime curvature due to constraint imbalance.