Godframe Simulation Update: Collision Detonation Ignition

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# Summary of Update

This document summarizes the critical update to the Godframe scalar field simulation, leading to the first confirmed ignition event using a superluminal-to-subluminal transition model. This new configuration is a continuation—not a replacement—of the original Godframe theory, refining the activation conditions and initial field behavior necessary to achieve dynamic evolution.

# What Changed

* 1. Ξ Field Redefined:

Ξ(x, t) was modified to represent a high-energy state (above the critical threshold Ξ\_c) that rapidly drops at a defined time, simulating a superluminal-to-subluminal energy transition:  
 Ξ(t) = 50 × Ξ\_c × exp(−(x/2)^2) × [1 − tanh(5 × (t − nt/4))]

* 2. φ Initial Conditions Refined:

Instead of a symmetric Gaussian bump, φ was seeded off-center to break spatial symmetry. Additionally, an explicit second-order time injection (φ\_tt) was added to simulate a high-impact collision.  
 φ[1] = 0.5 × exp(−((x + 3)/0.5)^2)  
 φ[2] = φ[1] + Δt^2 × 5.0 × exp(−((x + 3)/0.5)^2)

* 3. Activation Function (Theta):

A hard step function was used to represent activation only when Ξ exceeds Ξ\_c:  
 Θ(Ξ) = Heaviside(Ξ − Ξ\_c)

* 4. Potential Gradient Strengthened:

The scalar potential V′(φ) was steepened using a φ⁵ term to generate stronger instability and curvature:  
 V′(φ) = λ(φ³ + 0.5φ⁵) − λφφ₀²

* 5. Visualization:

The color scale was adjusted to detect fine movement in φ:  
 vmin = 0, vmax = 0.001

# Integration with Godframe Theory

This configuration is fully consistent with the original Godframe framework. It operates within the same scalar field logic and Lagrangian mechanics. The theory still describes a gravity-generating scalar field activated by exceeding a relativistic energy threshold. What changed is the method of activation and the modeling of φ ignition, allowing us to finally observe dynamic field behavior under simulated pre-spacetime conditions.