

# P1 – Interpretation and Solutions of the Scalar Equation

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## Goal

Explore the physical and mathematical meaning of the imaginary scalar equation derived from the unified field equation  $\Theta(q, \tau)$ .

## Equation of Interest

From the scalar-imaginary projection:

$$\Im[\text{Sc}(\mathcal{D}_q \Theta(q, \tau))] = 0$$

## Strategy

- Analyze its form under spherical symmetry and FRW cosmology.
- Test if this reduces to a constraint on topology or yields new scalar fields.
- Examine links to axion/dilaton or inflaton-like dynamics.

## Next Steps

- Write  $\Theta$  under spherical symmetry.

- Perform symbolic computation of imaginary scalar part.
- Solve for specific boundary conditions.