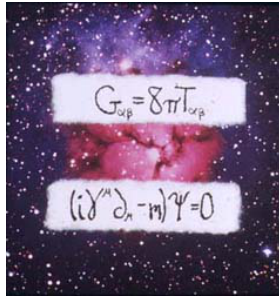


# Unified Physics

How does Nature make it all work, from tiny to HUGE?



Einstein equations of general relativity

Dirac equations of quantum field theory

## History

Common goal at the end of a career in physics

## Current Efforts

Work on strings makes the most claims

## My Effort

Build causality into number theory:

$[0, 1)$  timelike,  $[1]$  lightlike,  $(1, \infty)$  spacelike

Quaternion analysis needs factors of  $1/3$ , good for quarks

Working on the quaternion manifold may need maps that return in  $2\pi$  and  $4\pi$ , good for bosons and fermions

Give zero - the observer, the right topology to 1 in space-time

