Small Gravity

Get gravity to work nicely with quantum mechanics.

$$\left(\frac{d^2}{dt^2} - c^2\nabla^2\right) A^\mu = J^\mu \xrightarrow[\text{picking a gauge}]{\text{invert by}} A^\mu = e^{ikx}\ldots$$

Field eqs — propagator (gauge dep. stuff)

$\mathcal{L}$ = simple
+ A^μ...perturbation

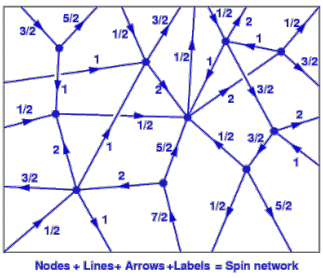
The issue: does the perturbation converge in a scattering calculation?
"Yes" for 4 linear EM eqs,
"no" for 10 nonlinear GR eqs.

History

1916+ Force laws the same, so quantization the same, no?

Current Efforts

Work with strings
Loop quantum gravity



My Efforts

Space-times-time equivalence class as gravity means there are NO gravitons and nothing to quantize.