

Newcomers Day 2025/2026

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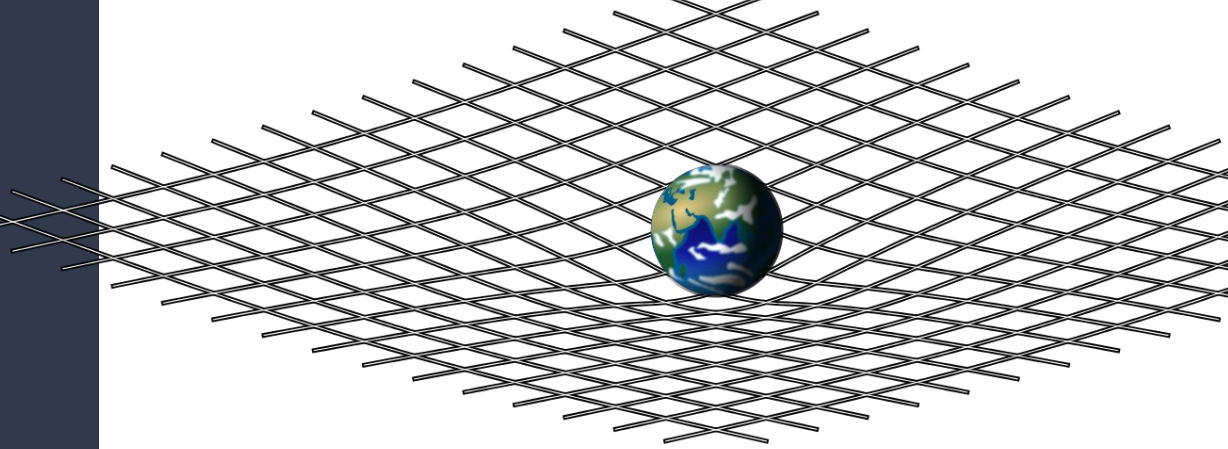
Who am I?



Provins

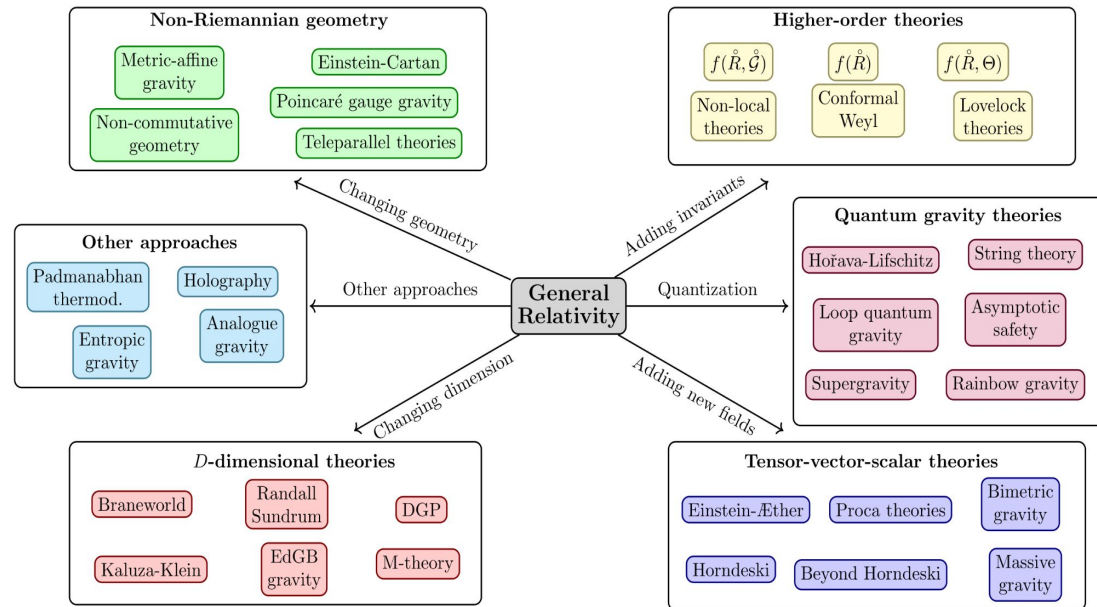


Why is gravity a point?



General Relativity has some serious problems

- Singularities
- Closed-timelike geodesics
- Cosmological tensions
- Not “easily” quantizable



My PhD project(S!)

“Applications to compact objects physics and cosmology of Scalar-Vector-Tensor theories of gravity”

- Instabilities in higher-order gravity theories (Ostrogradsky ghosts)
- **xHam**: *Mathematica* package to perform (almost) automatic Hamiltonian analysis
- Construction of higher-order ghost free SVT theories
- Black holes/Cosmological solutions in these models
 - *And others...*