



Origin of Space-Time

Scientific convenor

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Issues

- birth, evolution, death of the Universe
 - strong curvature and quantum regime
(big bang, big crunch singularity)
 - emergent 4-dimensional spacetime
(string theory, LQG, (D)brane worlds, large extra dimensions)
 - anything else on Z near infinity
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2006 - 2007

- (D)brane cosmology
- (non)critical string
- flux compactifications
- landscapes
- loop quantum cosmology
- modified gravity



2007-2008 activities


- Spacetime foam Ellis, Mavromatos
 - Loop quantum cosmology Nelson, Sakellariadou
 - Lee-Wick standard model Espinosa
 - Deformed Poincare, Lorentz symmetries
Mourad, Joung; Ellis, Harries, Sakharov
 - Time-dependent string background
Alexander, Mavromatos, Tanner; Jokela, Keski-Vakkuri
 - Naked singularity Babichev
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Last Year, I advised you to...

Shut up and Calculate!

anonymous

Naked Singularity

- why potentially interesting?
- **NON-decoupling** between UV and IR
anomaly; Callan-Rubakov effect
- wave equation + boundary condition at 
- Implications?
a direct window to Planck scale physics?
effects to early universe evolution?

Advice 2008

Light Bulb Was Never Invented By Merely
Improving Performance of Candles.

Laser Was Never Invented By Merely
Improving Performance of Light Bulb.
