

Abstract Submitted
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Spontaneous Dimensional Reduction in Short-Distance Quantum Gravity?¹ STEVEN CARLIP, UC Davis — Several lines of evidence hint that quantum gravity at very small distances may be effectively two-dimensional. I will summarize the evidence for such “spontaneous dimensional reduction,” and suggest an additional argument coming from the strong-coupling limit of the Wheeler-DeWitt equation. If this description proves to be correct, it suggests an interesting relationship between small-scale quantum spacetime and the behavior of cosmologies near an asymptotically silent singularity.

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Steven Carlip
UC Davis

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