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General Relativity and Quantum Cosmology

Embeddings and time evolution of the Schwarzschild wormhole

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(Submitted on 25 Jul 2011 (v1), last revised 18 Nov 2011 (this version, v2))

We show how to embed spacelike slices of the Schwarzschild wormhole (or Einstein-Rosen bridge) in R3. Graphical images of embeddings are given, including depictions of the dynamics of this nontraversable wormhole at constant Kruskal times up to, and beyond, the "pinching off" at Kruskal times \pm1.

Comments: Amplified exposition and added some references

General Relativity and Quantum Cosmology (gr-qc); Subjects:

Mathematical Physics (math-ph)

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