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New exact vacuum solutions and wormholes in \mathbb{R}^2 gravity

Wednesday 26 April 2023 16:00 (15 minutes)

In this talk, I shall present a novel class of non-Schwarzschild asymptotically flat metrics in exact closed analytical form for pure \mathbb{R}^2 gravity (Phys. Rev. D 106 (2022) 10, 104004). They were recently derived from a program originated by Buchdahl in 1962. I shall also discuss the existence of Morris-Thorne-Buchdahl wormholes using the metrics.

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