

Aspects of Spherically Symmetric Geometrodynamics in the Jordan and Einstein Frames

Wednesday, 11 September 2024 10:05 (25 minutes)

In this talk we will introduce and perform ADM analysis for spherically symmetric solution of General Relativity. We will discuss with particular care the problem of the boundary terms to be introduced in the general case of spherical symmetry. We will derive the Hamiltonian equations of motion for Brans-Dicke theory, with spherical symmetry, stressing the importance of the boundary terms. We will pass from the Jordan to the Einstein frames, and we will show that the BMBM Black Hole is solution of the Hamiltonian equations of motion in the Jordan frame. This solution maps into naked-singularity Janis's solution in the Einstein frame. We will discuss this result.

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