



CONSTRUCTION OF THE SHELL IN NONSYMMETRIC GRAVITY*

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Abstract. We examine the self-gravitating spherical shell in the fully non-linear and nonsymmetric theory of the gravity. We argue that the hyperdense static finally collapsed object could not be made of any known form of matter. Also we observed that if the radius of the shell is sufficiently small then the antisymmetric part of the energy-momentum tensor exceeds its symmetric part. It seems to violate the natural physical conditions.

MSC: 83D05, 53B50, 53B30

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1. Introduction

Almost from the beginning of the theory of General Relativity many researches noticed the problem connected with existence of the singularities. There are at least three main ways to overcome this problem. In the most conservative approach it is presumed that the evolution of the system is well defined outside of the event horizons. The validity of this approach needs the proof of the Cosmic Censorship Conjecture. In the second approach it is presumed that all singularities disappear at the quantum level of the gravity theory (see for example [19], [12], [17]). The last approach is based on the conviction that there is possibility to construct classical gravity theory that is free of singularities. In the third strategy the potential alternative theory of gravity must contain General Relativity as the weak field limit. This requirement is imposed on new proposals of gravity theories because in the

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