General Relativity and Quantum Cosmology

On analogues of black brane solutions in the model with multicomponent anisotropic fluid

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(Submitted on 22 Jan 2010)

A family of spherically symmetric solutions with horizon in the model with m-component anisotropic fluid is presented. The metrics are defined on a manifold that contains a product of n-1 Ricci-flat "internal" spaces. The equation of state for any s-th component is defined by a vector U^s belonging to $R^{n + 1}$. The solutions are governed by moduli functions H_s obeying non-linear differential equations with certain boundary conditions imposed. A simulation of black brane solutions in the model with antisymmetric forms is considered. An example of solution imitating M_2-M_5 configuration (in D =11 supergravity) corresponding to Lie algebra A_2 is presented.

Comments:	6 pages, Latex
Subjects:	**General Relativity and Quantum Cosmology (gr-qc)**
Report number:	IGC-PFUR/22-01-10
Cite as:	**arXiv:1001.4053v1 [gr-qc]**

Submission history

From: Vladimir Ivashchuk [view email]

[v1] Fri, 22 Jan 2010 18:07:19 GMT (9kb)

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