General Relativity and Quantum Cosmology

Features of gravitational waves in higher dimensions

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There are several fundamental differences between four-dimensional and higher-dimensional gravitational waves, namely in the so called braneworld set-up. One of them is their asymptotic behavior within the Cauchy problem. This study is connected with the so called Hadamard problem, which aims at the question of Huygens principle validity. We investigate the effect of braneworld scenarios on the character of propagation of gravitational waves on FRW background.

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