Bianchi type-I cosmological model and Bel-Robinson energy tensors

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Abstract

Given the growing interest of the researchers in cosmological models and their eagerness to construct the local tensors describing the strength of gravitational field, we write the expression for the Bel-Robinson tensor defined in three different ways for a Bianchi type-I cosmological model. In doing so we use the orthonormal basis and compare the results obtained with those for ordinary coordinate basis.

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