



istanbul matematiksel bilimler merkezi
istanbul center for mathematical sciences

BORN-INFELD GRAVITY THEORIES

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Abstract

Born-Infeld (BI) gravity theories gained a recent, rather wide interest. There are two main approaches in the development of BI gravities. In one of the approaches, the metric is the only independent field while in the other case, the Christoffel connection is also an independent field. Due to this fact, this second class is dubbed as the Eddington-inspired BI gravity. This talk is focussed on the metric based BI gravity theories. Mainly, the construction of unitary BI gravity theories will be discussed around the flat and maximally symmetric backgrounds. The constructed unitary BI gravity theories have some nice features. By construction, in 2+1 dimensions, the unitary BI gravity theory has the same spectrum as the new massive gravity while in higher dimensions they have the same spectrum as the Einstein's gravity. The constructed theories have a unique unitary vacuum. In addition to these features, the c -function and the entropy related properties of these theories will also be discussed.

Date : Tuesday, April 24, 2018

Time: 10:00

Place: IMBM Seminar Room, Boğaziçi University South Campus