



istanbul matematiksel bilimler merkezi
istanbul center for mathematical sciences

CARROLL AND GALILEI (HIGHER SPIN) GRAVITY

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Abstract

In this talk, I will consider ultra-relativistic and non-relativistic limits of the Einstein-Hilbert action, that lead to gravitational theories called Carroll and Galilei gravity respectively. I will show that in the first order formulation the equations of motion of these theories lead to geometrical constraints and that unlike for relativistic gravity, not all components of the spin connections can be determined by solving suitable torsion constraints. I will then argue that the undetermined spin connection components can be viewed as Lagrange multipliers for the geometrical constraints. Finally, I will consider generalizations to three-dimensional higher spin gravity theories.

Date : Monday, April 17, 2017

Time: 14:00

Place: IMBM Seminar Room, Boğaziçi University South Campus