



東北大学 宇宙創成物理学国際共同大学院プログラム

GP-PU (Graduate Program on Physics for the Universe) Seminar

“Towards consistent graviton’s mass”

by Rampei Kimura

(Waseda University)

Time and Date : 10:00 - 12:00, Tue November 17th 2020

Venue : Register in advance for this meeting:

https://us02web.zoom.us/meeting/register/tZ0sceyoqTssGNyPTVSr2t_ZAyUyr3cwrWpN

Abstract:

The construction of consistent theories of a massive spin-2 field has attracted considerable attention since Fierz and Pauli proposed linearized massive gravity in 1939. Unfortunately, the appearance of an extra ghost degree of freedom is inevitable in Fierz-Pauli (FP) theory for a long time. Surprisingly, in 2010 de Rham and Gabadadze constructed a ghost-free theory by adding appropriate combinations of nonlinear potential terms. In this talk, I will review massive gravity starting from the FP theory and its problem, nonlinear massive gravity. Then I will briefly explain consistent theories of massive gravity that we proposed recently and their current status in a cosmological context.

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