KMI - Tagen Joint Seminar Friday, November 7, 2014 5:00 pm, KMI Science Symposia (ES-635)

"Dark Gravity"

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Abstract:

Our Universe is a remarkable laboratory for physics both at very high and very low energies. Whilst most of the history of our Universe is understood with a remarkable precision, the current state of our Universe remains mystifying, with its 95% of unknown dark matter and dark energy. Could the late-time acceleration of the Universe and the apparent discrepancy with standard particle physics be the first sign of the breakdown of gravity at very large distances ? This is the question I will explore within the context of massive gravity. Whilst massive gravity is one of the earliest and most natural generalization of General Relativity, its fully consistent formulation was only unraveled recently. After discussing its realization I will explore its phenomenological implications, as much on cosmological scales than within the solar system.