



Contribution ID: 46

Type: **not specified**

Why and how should we test (theory of) gravity on cosmological scales?

Tuesday 23 October 2018 16:00 (30 minutes)

The GR is over 100 years old. The beautiful Einstein's relativity theory of space-time and gravity is one of the founding block of modern physics and cosmology in particular. In my talk, I shall discuss why one would like (and actually really need) to design and convey tests of the theory on cosmological scales. Then, I will also present a handful of theories (called Modified Gravity) that aim to rival the ruling of GR at the cosmological distances. Finally, I will present and discuss some reasonable ways for conveying cosmological test of gravity, discuss why most of them might fail and present some potentially promising avenues for new class of such tests. Concluding with why you might want to stay tuned for future in that field!

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Session Classification: Afternoon session