

Seminarium Astrofizyczne

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ul. Pasteura 7, sala 404

<https://www.gotomeet.me/NCBJmeetings/seminarium-astrofizyczne>
ID 349-387-373 Password: AstroSemi

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Nonlinear Cosmological probes of gravity theories beyond General Relativity

Several modifications to general relativity have been proposed with the aim to explain the nature of dark energy and the accelerated expansion of the Universe. In this talk I will review the present status of modified theories of gravity in the light of astrophysical probes of gravity in the weak-field regime, ranging from stars to cosmological scales. I begin by setting the scene for how theories beyond General Relativity are expected to behave in the different astrophysical systems, as well as their cosmological signatures. With these in hand, I present a range of observational tests with an eye to using the current and next generation of observations for tests of gravity. In particular, I will show how physical observables of the non-linear regime of structure formation are promising probes to constraining theoretical models in the nonlinear dynamics of stars, galaxies, clusters and large scale structure.

Serdecznie zapraszam,
Agnieszka Majczyna