# Testing gravity with J-PAS

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We analyze the sensitivity of J-PAS (Javalambre Physics of the Accelerating Universe Astrophysical Survey) to measure deviations of General Relativity on cosmological scales. The survey will map several millions of luminous red galaxies, emission line galaxies and quasars in an area of thousands of square degrees in the northern sky with precise photometric redshift measurements. Using a model-independent approach, we parametrize deviations with respect to GR in terms of an effective Newton constant and a slip parameter. Combining clustering and weak lensing information, we forecast the precision with which J-PAS will be able to measure both parameters and compare with upcoming surveys such as DESI or Euclid.

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[1] N. Benitez *et al.* [J-PAS Collaboration], "J-PAS: The Javalambre-Physics of the Accelerated Universe Astrophysical Survey," arXiv:1403.5237 [astro-ph.CO].

[2] M. A. Resco and A. L. Maroto, Phys. Rev. D **97** (2018) no.4, 043518 doi:10.1103/PhysRevD.97.043518 [arXiv:1707.08964 [astro-ph.CO]].

[3] [J-PAS Collaboration], "J-PAS forecasts on dark energy and modified gravity" (in preparation)