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Large Scale Structure as a Probe of Gravitational Slip SCOTT DANIEL, ROBERT CALDWELL, Dartmouth College, ASANTHA COORAY, University of California, Irvine, ALESSANDRO MELCHIORRI, University of Rome — Many modified gravity schemes predict a non-zero difference ("gravitational slip") between the Newtonian and longitudinal perturbed metric potentials. Such a slip would affect the growth of large scale structure without altering the expansion history of the universe. We quantify the slip with a new parameter ϖ, show the effect of non-zero ϖ on the growth of cosmic overdensities, and constrain its value using CMB and weak lensing data.

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