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**Equivalence Principle tests as probes of Modified Newtonian Dynamics** ALEX POYNEER, JONAS PEREIRA, THOMAS KRAUSE, JAMES OVERDUIN, Towson University — Modified Newtonian dynamics (MOND) has been proposed as a way to reconcile gravitational theory and observational cosmology without the need for large amounts of unseen dark matter. Instead, a change is postulated to the Newtonian limit of standard theory in the regime of very small accelerations. We consider whether it might be possible to constrain this idea using proposed space tests of the Equivalence Principle (EP). Such tests could be sensitive to accelerations as small as  $10^{-18}$  g over 20 orbits.

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