SURVEY: COSMOLOGICAL PRIORITIES FOR THE NEXT DECADE

1. Below is a list of possible discoveries. In column 1, give each a ranking from 1 to 10 according to which you think would be most important, IF shown to be true, (1 = world-view changing or convincingly confirmed, 10 = not important)

2. In column 2, give each a ranking from 1 to 10 according to which you think is most likely to be true
(1 = highly likely, 10 = highly unlikely)

3. In column 3, rank each according to which you think is technically challenging/most expensive to achieve
(1 = most challenging/most expensive, 10 = can do at moderate expense with current technology)

1	2	3	
_____	_____	_____	Evidence that w_{DE} is not equal to -1
_____	_____	_____	Evidence that w_{DE} is equal to -1 to within 0.1%
_____	_____	_____	Astronomical/Underground detector evidence that DM is WIMPs
_____	_____	_____	Evidence of cosmic g-waves with $r > 0.01$
_____	_____	_____	Finding that $r < 0.01$
_____	_____	_____	Evidence of Non-gaussianity at level inconsistent with simple inflation
_____	_____	_____	Evidence that $f_{NL} < 1$
_____	_____	_____	Evidence that n_s is measurably less than 1
_____	_____	_____	Evidence of large run
_____	_____	_____	Evidence of isocurvature perturbations
_____	_____	_____	Evidence of cosmic strings or textures
_____	_____	_____	Evidence of spatial curvature at the level > 0.01%
_____	_____	_____	Evidence of time-varying G or fine-structure constant
_____	_____	_____	Evidence of deviations from GR

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4. Given the answers and any further considerations you wish to add, rank order 1 to 9 which are the priorities (1=highest):

_____ measuring w to within 3 % (or what you think is feasible) and

_____ seeking evidence of WIMP dark matter

_____ improving measurements of n_s to 0.5% level (and measurements of run)

_____ improving measurements of spatial curvature

_____ determining if $r < 0.01$

_____ improving search for isocurvature perturbations

_____ search for cosmic strings and textures

_____ determining if $f_{NL} < O(1)$

_____ improve sensitivity to time-varying constants by two orders of magnitude

[The survey is just for fun, but if you wish to submit the survey to add to our statistical sample, send to steinh@princeton.edu.]