from 28 November 2016 to 2 December 2016
Australia/Sydney timezone

WILL THE EUCLID SATELLITE SEE NON-EUCLIDEAN GEOMETRY?

TERMS OF BET BETWEEN D.L. WILTSHIRE AND X

WHEREAS David Wiltshire, believes that the era of precision cosmology will topple the cosmological constant from its current dominance of our models of the Universe, once the rigidly expanding nature of spatial geometry – that the dark energy assumption rests on – is put to the test; and

WHEREAS X believes …

WE HEREBY WAGER that that once observations of the expansion history of the universe are sufficiently precise to perform the Clarkson-Bassett-Lu test [1] at the level of precision depicted by Sapone, Majerotto and Nesseris [2] Figure 10, right panel, (as projected for Euclid satellite measurements and 1000 supernovae, for example), then the result will show a failure of the Friedmann-Lemaître-Robertson-Walker (FLRW) model at redshifts $z < 1$.

If the FLRW model fails the test, then X shall purchase for DLW a clock of DLW's choice to help him keep better track of the lack of constancy of cosmological ideas. If the FLRW model stands the test the DLW shall purchase for X …

The value of the "objet d'art" shall not exceed US$200 or 10% of the loser's net monthly salary, whichever is lower.

SIGNED:

WITNESSED:

References:

[1] Clarkson, C., Bassett, B.A. and Lu, T.H.-C., 2008, *"A general test of the Copernican Principle"*, Phys. Rev. Lett. **101**, 011301
[2] Sapone, D., Majerotto, E. and Nesseris S., 2014, *"Curvature vs distances: testing the FLRW cosmology"*, Phys. Rev. D **90**, 023012.

Note: This wager was offered by DLW at a talk in the CosPA2016 Conference, University of Sydney, on 1 December 2016, as a "precision cosmology" version of a more loosely worded 10 year wager he had entered into with T Padmanabhan on 15 December 2006, and conceded on 26 November 2016.