

TEXAS IN AUSTRALIA

XXIII TEXAS SYMPOSIUM ON RELATIVISTIC ASTROPHYSICS

2006

MELBOURNE UNIVERSITY

11-15 DECEMBER 2006

TERMS OF BET BETWEEN T. PADMANABHAN AND D.L. WILTSHIRE

WHEREAS Thanu Padmanabhan is convinced of the theoretical beauty of the cosmological constant and believes that observational data will ultimately show that a nonzero cosmological constant is driving the current accelerated expansion of the universe; AND

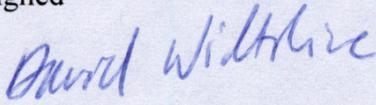
WHEREAS David Wiltshire, while accepting that a cosmological term may have relevance at some scale, is equally convinced that present epoch dark energy will in future be observationally shown to be an historical accident arising from our misinterpretation of gravitational energy, which is non-local,

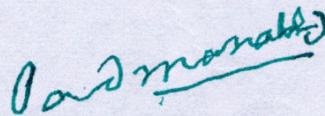
WE HEREBY WAGER that if in 10 years time (by 15 December 2016) the observationally verified model of cosmology corresponds to a solution of Einstein's equations with an energy-momentum tensor with a term

$$T_{\mu\nu} = \Lambda g_{\mu\nu}, \quad \Lambda = \text{constant},$$

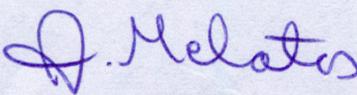
contributing at least 10% to the total energy-momentum over redshifts $0 < z < 8$, then DLW shall purchase for TP a lamp of TP's choice to help him better illuminate his calculations of the darkness of the Universe. On the other hand if this is not the case, then TP shall purchase for DLW a clock of DLW's choice to help him keep better track of the lack of constancy of cosmological ideas. The value of the "objet d'art" shall not exceed US\$200 or 10% of the loser's net monthly salary, whichever is lower. Either party is free to concede the bet at any time before the 10 years are up.

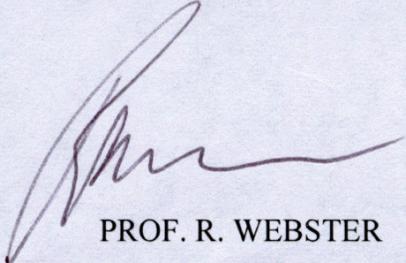
Signed


DAVID L. WILTSHIRE


THANU PADMANABHAN

Witnessed by


PROF. A. MELATOS


PROF. R. WEBSTER

[Note: This bet was made on the basis of a challenge in T. Padmanabhan's lecture delivered on 15 December 2006 at the 23rd Texas Symposium, that he had not met a physicist willing to make a wager against his claim that "w=-1".]