

## Wiltshire David L.

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Period covered: 29 July 2008 – 30 October 2008



### I Scientific Work

Prof. Wiltshire completed work for two research papers during his three month visit to ICRA Net. Both papers relate to his current program of investigating the possibility that effects attributed to dark energy and cosmic acceleration have their origin in a misidentification of gravitational energy gradients within the inhomogeneous structure of the universe, once structures form. This “radically conservative” solution to the problem of dark energy has begun to attract a reasonable amount of interest, and has already featured prominently in the popular press, with a cover feature in *New Scientist* in March, 2008.

### 2010 List of Publications

D.L. Wiltshire,  
"Average observational quantities in the timescape cosmology",  
*Phys. Rev. D* 80 (2009) 123512.

D.L. Wiltshire,  
"Gravitational energy as dark energy: Average observational quantities",  
in *Proceedings of the Invisible Universe Conference*, eds. J.-M. Alimi and  
A. Fuozfa, *AIP Conf. Proc.* 1241 (2010) 1182-1191.

D.L. Wiltshire,  
From time to timescape - Einstein's unfinished revolution,  
*Int. J. Mod. Phys. D* 18 (2009) 2121-2134.