

Alternative Cosmology Group Newsletter - March 2007

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The editor apologizes for missing February, but we are combining months to get back on schedule.

Two papers show that MOND remains the liveliest area of controversy among alternative cosmology ideas.

The first reviews attempts to put MOND on a sound theoretical basis and the second is a detailed rebuttal to the widely publicized claim that the "bullet" clusters confirm dark matter. It instead claims that MOND can completely account for the observations.

Also, Sky and Telescope, the leading US amateur astronomy magazine, features an article on MOND, the first coverage in the magazine of alternative cosmology for years. (Not available online.)

The modified Newtonian dynamics-MOND-and its implications for new physics

Authors: Jacob D. Bekenstein

<http://lanl.arxiv.org/abs/astro-ph/0701848>

The Bullet Cluster 1E0657-558 evidence shows Modified Gravity in the absence of Dark Matter

Authors: J. R. Brownstein, J. W. Moffat

<http://lanl.arxiv.org/abs/astro-ph/0702146>

The conventional explanation of quasars is of course that they are primarily gravitational phenomena, black holes. However two papers indicate the crucial role played by magnetic fields in these objects.

The first shows similarity between purely electromagnetic phenomena such as solar flares and quasars, while the second indicates that GRB observations may require a magnetically confined outflow.

(The editor published a fully electromagnetic model of a quasar many years ago –available at<http://www.bigbangneverhappened.org/> .**click document downloads, then Magnetic Self-Compression**)

Similar phenomena at different scales: Black Holes, the Sun, Gamma-ray Bursts, Supernovae, Galaxies and Galaxy Clusters

Authors: Shuang Nan Zhang

<http://lanl.arxiv.org/abs/astro-ph/0702246>

The nature of the outflow in gamma-ray bursts

Authors: P. Kumar, E. McMahon (University of Texas, Austin), A. Panaitescu (LANL), R. Willingale, P. O'Brien (Leicester), D. Burrows (Penn State), J. Cummings, N. Gehrels, S. Holland (NASA GSFC), S. B. Pandey (Mullard), D. Vanden Berk (Penn State), S. Zane (Mullard)

<http://lanl.arxiv.org/abs/astro-ph/0702319>

This paper claims 2-sigma results for variability of the fine structure constant.

A new measure of $\Delta \alpha/\alpha$ at redshift $z = 1.84$ from very high resolution spectra of Q1101-264

Authors: S.A. Levshakov, P. Molaro, S. Lopez, S. D'Odorico, M. Centurion, P. Bonifacio, I.I. Agafonova, D. Reimers

<http://lanl.arxiv.org/abs/astro-ph/0703042>