# Alternative Cosmology Group Newsletter - July 2005

# Posted August 8, 2005

#### New cosmic look may cast doubts on big bang theory

"Einstein's theory of how gravity attracts light, coupled with the uneven distribution of matter in the near universe, says you should have a spread of sizes around the average, with some of these cool spots noticeably larger and others noticeably smaller," he said. "But this dispersion of sizes is not seen in the data. When we look at them, too many cool spots are the same size."

"Recent observations by NASA's new Spitzer space telescope found "old" stars and galaxies so far away that the light we are seeing now left those stars when (according to big bang theory) the universe was between 600 million and one billion years old -- much too young to have galaxies with red giant stars that have burned off all of their hydrogen. Other observations found clusters and super clusters of galaxies at those great distances, when the universe was supposed to have been so young that there had not been enough time for those monstrous intergalactic structures to form." http://spaceflightnow.com/news/n0508/02background/

#### Too many cool spots having "same size" implies unknown quantization mechanism.

"The Quantum Mechanical fluctuations produced variations in density and temperature over a very wide range of scale sizes. The finer detail of the VSA observations, as compared with those of WMAP, has enabled a better understanding of how the distribution of these fluctuations varies as a function of size. Previous ideas had suggested that, once the subsequent history of the Universe is accounted for, the distribution of fluctuations would be independent of scale. However, the current results show that the fluctuations are most apparent at an angular scale of about 1/2 degree, the size of the Moon in the night sky. On both larger (the size of the Universe) and smaller (the size of a cluster of galaxies) scales, these variations in density and temperature are much less."

#### http://www.jb.man.ac.uk/news/vsa2/

The fractal universe provides an idea for quantization, e.g. see [1]. [1] http://www.amherst.edu/~rloldershaw/

The planet formation mysteries deepens. How the10th planet is created? Where did it come from?

# **Discovered Tenth Planet** http://www.spaceref.com/news/viewpr.html?pid=17528

#### Spitzer telescope finds hidden, hungry black holes

"Most of the biggest black holes in the universe have been eating cosmic meals behind closed doors - until now." http://spaceflightnow.com/news/n0508/03blackholes/

## Astronomers find clue to glowing X-ray sky

"Astronomers have found that the sky glows in very energetic X-rays. They think the X-rays are the last gasp of material being swallowed by massive black holes. These objects hide behind thick walls of gas and dust, walls so thick that only radio waves and very high-energy X-rays can escape. Even moderately energetic X-rays are blocked."

## http://spaceflightnow.com/news/n0508/03xraysky/

## Hubble Spies a Zoo of Galaxies

"Gazing deep into the universe, NASA's Hubble Space Telescope has spied a menagerie of galaxies. Located within the same tiny region of space, these numerous galaxies display an assortment of unique characteristics. Some are big; some are small. A few are relatively nearby, but most are far away. Hundreds of these faint galaxies have never been seen before until their light was captured by Hubble." http://hubblesite.org/newscenter/newsdesk/archive/releases/2005/20/image/a

## Spitzer Finds Life Components in Young Universe

"NASA's Spitzer Space Telescope has found the ingredients for life all the way back to a time when the universe was a mere youngster." http://www.jpl.nasa.gov/news/news.cfm?release=2005-123

The similarities between the near the distant universe should be considered in alternative cosmologies.

# NASA's Chandra Neon Discovery Solves Solar Paradox

"Observatory survey of nearby sun-like stars suggests there is nearly three times more neon in the sun and local universe than previously believed. If true, this would solve a critical problem with understanding how the sun works."

http://chandra.harvard.edu/press/05\_releases/press\_072705.html