

## Research on Astronomy and Physics

### **EARLY STAGE CONSTRUCTION: 6/27/12**

Please contribute whatever you can to support this effort. Every bit helps. Thanks.

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[Updated 6/18/12]

To view a .pdf file for easier reading and printing:  
. (This may take a moment to download.)

**Warning:** If you landed on this UBtheNEWS page first and/or are generally unfamiliar with this website and *The Urantia Book*, this is not a good place to get started. This page provides resources for doing an independent study that compares what *The Urantia Book* says about the nature and structure of the universe with supportive discoveries and theoretical developments in physics and astronomy.

The Home page gives a very brief overview of the UBtheNEWS project; it's designed for new visitors. The New Visitors page provides options for getting started that are tailored to your interests and how much time you want to spend.

There is an important difference between UBtheNEWS "Research" pages and "Report" pages. Reports walk the reader, step by step, through an appreciation for how new discoveries and scientific advances increasingly support *The Urantia Book's* credibility. Reports presume people are generally unfamiliar with *The Urantia Book* and the field of study that pertains to the corroboration. Research pages, in contrast, presume a general understanding of both.

If you would like to get started with UBtheNEWS reports that are astronomy-related, consider the **Tycho's Nova Report**, which shows *The Urantia Book* was correct in identifying this supernova as a double star explosion about twenty years before astronomers were able to verify this historic fact in the 1970's. The authors of *The Urantia Book* stake their credibility on their presentation of historic facts, which is one of the reasons Tycho's Nova is a good subject for a UBtheNEWS report. Additionally, the **Galaxies Report** documents the fulfillment of one of the few prophecies made in *The Urantia Book*, and the **Mercury's Rotation Report** shows how the authors steered clear of validating incorrect beliefs about Mercury at the time *The Urantia Book* was published.

New discoveries and scientific advances in the fields of physics and astronomy have been lending support for decades to statements in the *The Urantia Book* about these subjects. Because these are such vast and complex fields of science and *The Urantia Book* provides a unique perspective on them, writing reports for people who are unfamiliar with both of these things is not practical.

Naturally, ever since this project began in 2007, Urantia Book readers have been sending UBtheNEWS information on these subjects. This page, created in June 2012, is designed to help us organize the material and provide it to people as quickly as possible. Enjoy. Please keep sending us

**Astronomy**  
Introduction

**Astronomy Research**

**Physics**  
Introduction

**Physics Research**



new material, and we will keep working our way through the backlog of material we already have!

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## Astronomy

### Introduction

In the third and fourth sections of Paper 15: The Seven Superuniverses, the authors of *The Urantia Book* lay down a basic framework for understanding what we are seeing when we look up into the heavens. It's important to read both of these sections in their entirety to develop your foundation for what *The Urantia Book* teaches us about astronomy.

In Section 3: The Superuniverse of Orvonton, they begin by establishing that, in a general sense, Orvonton, the seventh superuniverse, is what astronomers identify as the Milky Way. Naturally, because the authors are instructing us in how to better use our language, they use various literary techniques in an effort to guide and inform our thinking. In this instance, they start by establishing "Milky Way" and "Orvonton" as roughly synonymous. And then quickly progress to the diminution of the human terminology by referring to it as "the so-called Milky Way."

Specifically, the section begins by identifying the primary subject and then making comparisons between human terminology and revelatory terminology: "Practically all of the starry realms visible to the naked eye on Urantia belong to the seventh section of the grand universe, the superuniverse of Orvonton. The vast Milky Way starry system represents the central nucleus of Orvonton, being largely beyond the borders of your local universe." The first word the next sentence, "This," unambiguously represents the subjects and objects of the previous two sentences: "all the starry realms visible," "the superuniverse of Orvonton," "vast Milky Way starry system," and "central nucleus of Orvonton." The verb "represent" clearly establishes that we are suppose to compare, not contrast, "the vast Milky Way starry system," which visibly stretches across the horizon, to Orvonton.

The opening of the third paragraph drives the point home by continuing to give further information through the same comparative relationship, while at the same time diminishing the status of the human terminology: "Observation of the so-called Milky Way discloses the comparative increase in Orvonton stellar density when the heavens are viewed in one direction, while on either side the density diminishes; the number of stars and other spheres decreases away from the chief plane of our material superuniverse."

To read the entirety of Sections 3 and 4, [click here](#).

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### Astronomy

#### Interests and Issues

[Aliens and the Original Number of Planets](#)

[Dark Islands of Space, Dark Matter, and Dark Energy](#)

[Galaxies Report](#)

[Mercury's Rotation Report](#)

[Origin of the Universe](#)

[Redshift and Counter Rotation](#)

[Respiration, Not Expansion, of Space](#)

[Rotation of the Universe](#)

[Sagittarius Is Both Direction and Place](#)

[Shape of the Universe](#)

[Tycho's Nova Report](#)

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### Aliens and the Original Number of Planets

In a 26-minute talk, Chris Halvorson, Ph.D. presents a perspective that explains why people report seeing different types of aliens, how the solar system can be seen as consistent with *The Urantia Book's* assertion that originally there were twelve planets, and where non breathers may be living in close proximity to us! This talk is highly recommended, but your appreciation for it will be

significantly heightened if you are familiar with certain sections of *The Urantia Book*.

To listen to this recording, [click here](#).

You may want to review these sections first (or afterwards): [Paper 49, Sections 2 and 3](#)

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## Redshift and Counter Rotation

### **National Science Foundation:**

#### **Gamma Ray Burst Smashes a Record**, September 12, 2005

Scientists measure cosmic distances via redshift, the extent to which light is "shifted" towards the red (lower energy) part of the electromagnetic spectrum during its long journey across the universe. The greater the distance, the higher the redshift.

Quasars, the famous distance record holder in the past, are actually most common around redshift 2, corresponding to a distance of about 10 billion light years. They virtually disappear at about redshift 5, corresponding to about 12 billion light years. Only a handful of quasars have been detected beyond redshift 6. Yet gamma-ray bursts might be detectable as far as redshift 20, Lamb said. This makes gamma-ray bursts, in Lamb's opinion, the premier method to probe the early universe: a redshift of 10 to 20 would correspond to the era when the very first stars began to form in the universe, about 200 million years after the Big Bang.

[http://www.nsf.gov/news/news\\_summ.jsp?cntn\\_id=104440](http://www.nsf.gov/news/news_summ.jsp?cntn_id=104440)

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## Respiration, Not Expansion, of Space

### ***Urantia Book related links:***

[11:6 Space Respiration](#)

[12:4 Space and Motion](#)

[12:5 Space and Time](#)

### **Discover Magazine: Those Dark Question**, May 28, 2006

Schaefer combined six different measurements of gamma-ray bursts to figure their distance and to probe how the universe has changed between their location and ours. He found evidence that dark energy is even more bizarre than his colleagues thought—not constant, as Albert Einstein imagined, but changing over time, so that the expansion of the universe might have sped up, slowed down, or even reversed at times. Schaefer and his colleagues may need years to confirm the results, however. "It's a hard theoretical game to play, even to understand how dark energy can be constant," he says, "since we don't really know what it is."

<http://discovermagazine.com/2006/may/dark-questions>

### **New Scientist: Gamma-ray burst study may rule out cosmological constant**, 1/1/06

In the largest GRB study of its kind, Schaefer found that 12 of the most distant GRBs - lying nearly 13 billion light years away - were all brighter than expected, suggesting the universe was expanding at a slower rate than it is today.

He says the fact that all 12 were brighter than would be predicted by a cosmological constant increases his confidence in the data. "It's like if you flip a coin and get 12 heads in a row," Schaefer told New Scientist. View several graphs of his results, [here](#).

He says that rather than pushing space apart, dark energy appears to have changed over time and was in fact drawing space together in the early universe. What that means for the fate of the universe is not clear, but it seems to open a Pandora's box of outlandish possibilities for dark energy, he says: "With quintessence, you can do anything you want."

<http://www.newscientist.com/article/dn8566>

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## Rotation of the Universe

### **Discovery News: July 8, 2011**

In a study of over 15,000 galaxies by Michael Longo and co-investigators at the



University of Michigan, the researchers report that spiral galaxies preferential spin clockwise or counter clockwise depending what hemisphere of the sky they are in. . . . Looking northward, above the plane of our Milky Way, he found that more than half of the spirals were spinning in a counterclockwise direction in the sky. This overabundance seems small, only seven percent of the total observed galaxy sample. But the odds of it being purely due to chance are a one in a million say the researchers. If the whole universe is rotating, then an excess number of galaxies on the opposite part of the sky, below the galactic plane, should be whirling in a clockwise direction. And indeed they are according to a separate 1991 survey of 8287 spiral galaxies in the southern galactic hemisphere.

<http://news.discovery.com/space/do-we-live-in-a-spinning-universe-110708.html>

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## Sagittarius Is Both Direction and Place

### *From The Urantia Book*

**15:3.5** The rotational center of your minor sector is situated far away in the enormous and dense star cloud of Sagittarius, around which your local universe and its associated creations all move, and from opposite sides of the vast Sagittarius subgalactic system you may observe two great streams of star clouds emerging in stupendous stellar coils.

**15:3.7** The Sagittarius sector and all other sectors and divisions of Orvonton are in rotation around Uversa, and some of the confusion of Urantian star observers arises out of the illusions and relative distortions produced by the following multiple revolutionary movements . . .

**41:0.4** Such is the constitution of the local star cloud of Neadon, which today swings in an increasingly settled orbit about the Sagittarius center of that minor sector of Orvonton to which our local creation belongs.

### *Related research*

#### **Viewzone**

"Using volumes of data from the Two-Micron All Sky Survey (2MASS), a major project to survey the sky in infrared light led by the University of Massachusetts, the astronomers are answering questions that have baffled scientists for decades and proving that our own Milky Way is consuming one of its neighbors in a dramatic display of ongoing galactic cannibalism. The study published in the *Astrophysical Journal*, is the first to map the full extent of the Sagittarius galaxy and show in visually vivid detail how its debris wraps around and passes through our Milky Way."

<http://viewzone2.com/milkywayx.html>

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## Physics

### Introduction

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### Physics Research

See the [Inner Ionosphere Report](#)

Inner Ionosphere Report Summary: In discussing earth's atmosphere, The Urantia Book states the following, "The lower five or six miles of the earth's atmosphere is the troposphere; this is the region of winds and air currents which provide weather phenomena. Above this region is the inner ionosphere and next above is the stratosphere." Urantia Book enthusiasts and critics alike have long considered this statement to be a mistake because the longstanding understanding of the earth's atmosphere has been that the ionosphere exists above the stratosphere.

However, in the late 1980's and early 1990's, over thirty years after The Urantia Book's publication, observation of "blue jets" were conclusively documented and accepted as an atmospheric condition. Notwithstanding that this phenomenon is still not well

understood, what has been learned about blue jets indicates that there must be an ionospheric layer below the stratosphere. Blue jets form above thunderclouds and often reach a height of about 25 miles above sea level. The long-recognized ionosphere, which exists above the stratosphere, begins at around 30 miles above sea level.

Calculations based on videos taken of blue jets, as well as other associated research, indicate that the ionic condition necessary to create their luminescent quality could not have its source in the thunderclouds over which they occur.

***Urantia Book related links:***

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[Back to Top](#)