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**THE
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WINTER 2014



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(Continued from back cover.)

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Front Cover: Ball lightning and snow rollers; see page 22. (Picture courtesy of Rhett Hall.)

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EDITORIAL

Well, it's finally done; *Geocentricity: The Church In The Woodshed* is available for purchase. The price is \$29.95 for a copy. With postage and handling the cost is \$35.50 for delivery in the US and \$60.00 elsewhere. More on that anon.

To give you a sense of the topics in the book I've listed the chapters followed by a list of major topics in that chapter. The listing starts on page 5 of this issue.

In this issue's "Panorama" we present a number of news stories of geocentric and creationist interest. Quantum-like behavior is increasingly observed on the macroscopic realm. No longer is the spooky behavior of quantum mechanics limited to the molecular and smaller scales. We report further on Couder's experiments in which a drop of liquid is pushed along by its pilot wave.¹ The single-particle interference pattern is explained by the phenomenon.

Then there is the anti-geocentric theory that professes to render geocentricity impossible. The theory that removed geocentricity from the table is based on the assumption that after the inflationary stage of the universe's creation, a deflation took place. The postulated deflation makes the signals we receive from distant points of the universe appear to be centered around the observer but, in the larger scale, we're only centered in a small part of the universe.

Then there is the explanation for strange accelerations observed by spacecraft flying past the earth. In the news note the accelerations are thought to be due to invisible dark matter that forms a ring around earth's equator.

Of course, the whole push of modern cosmology is to remove the earth from not only the center of creation but also the eradication of Scripture from its place in creation. As we discover more and more planets around other stars, instead of finding earth-like planets we find planets of every sort and size, even some earth-sized ones; but the earth-type planets, even though they may be in the habitable zone, have atmospheres that are pure poison to life as we know it. Evolutionists have a terrible time explaining why earth was created to support intelligent life while the vast majority of other planets can't.

Cosmologists are generalists by necessity. We examine as far as the eye can see as well as as small as we can detect. In this issue's Panorama we report on how proteins ring like a bell to support cellular life. Significantly, the frequencies of the bell ring in the frequency

¹ "Quantum Behavior in Silicon Oil," 2011, *B.A.* 21(137):75.

range of light. We now have some insight into the connection between light and life.

We have stars and we have planets. In this “Panorama” we examine the possibility that there is a third type of object that is intermediary between planets and stars. A particular kind of star called a brown dwarf seems to fit the bill. In the course of examining the evidence we uncover some new problems with evolution’s creation model for stars.

New Postal Rates

New postal rates went into effect earlier this year. They will not have a great effect on this publication, but for shipping books, it is a different story. For instance, the new postage rate for a copy of the *Geocentricity* book sent outside the U.S. is \$31.55.

Ball Lightning Update

Jim Hanson’s article on ball lightning generated considerable interest. Just as I thought the matter was closed, the severest winter storm since the 1970s hit, inundating us with snow, wind, and bitter cold. Out in open areas a rare phenomenon occurred: the wind rolled the snow into snow cylinders called “snow rollers.” Rhett Hall, who photographed the ball lightning that precipitated the ball lightning study called to say that the wind was rolling up the snow like a jellyroll. She said she would take some pictures and called back to say there was not enough contrast to really capture the snow rollers.

She decided to take a picture of them after sunset when the sun was not washing out the contrast. The result was two of the strangest pictures I’ve seen in a long time. The clearest of these photos graces the cover of this issue.

Panorama

Single-particle interference observed macroscopically

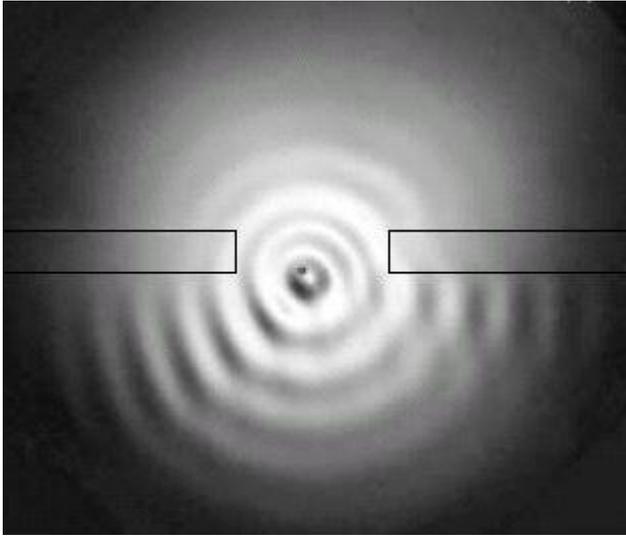


Figure 1: *This photo shows the droplet bouncing through one slit, while its trajectory is deflected by the interference of the reflected waves from two slits*

With a variation on the famous double-slit experiment of quantum mechanics, scientists Yves Couder and Emmanuel Fort from the University of Paris 7 are rewriting the textbooks. Their accomplishment, however, has less to do with quantum mechanics than with an observation once considered experimentally impossible: the wave-particle double nature of a macroscopic object (an oil droplet and its associated surface wave).

The droplet, which is about 1mm (10 million times larger than an atom), is also one million times larger than the second largest object--a 2-nm molecule called a buckyball--whose wave-particle duality was observed in 2003.

“The interest of our result comes from the fact that we observe single particle diffraction and interference with a classical system,” Couder told *PhysOrg.com*. “This phenomenon was thought to be reserved to the quantum scale.”

Although there is no specific dividing line between the quantum and macroscopic scales, an object larger than an atom generally has

much too small a wavelength to be detected. Wave-particle duality, one disturbing chapter of quantum mechanics, means that all objects (quantum and macroscopic) sometimes behave like waves and show interference, and other times like particles--objects that have mass and obey conservation laws. Duality, though strange, could explain why objects seem to be in two places at the same time and communicate instantaneously across distances. These abilities, to scientists, would be even more difficult to reckon with than wave-particle duality, which is accepted as an "interpretation" of the world rather than a literal description.

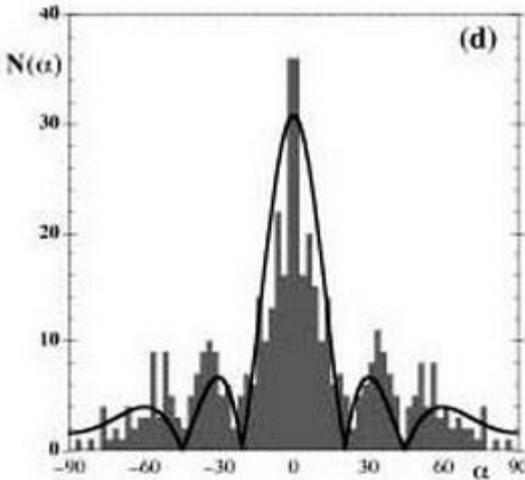


Figure 2: This graph shows the deviation of the walker's trajectory, even with the same initial conditions. The deviations are due to wave interference.

In 2006, Couder and Fort designed an experiment that enabled them to detect the interference pattern of an object they call a "walker"—a droplet of silicon oil and the surface wave packet it emits, which should be thought of as one entity. The scientists forced the droplet to bounce indefinitely on the surface of a vibrating fluid. At a certain instability threshold, the droplet emits a wave packet which in turn makes the droplet "walk" on the liquid surface.

"The breakthrough came when we found that a bouncing drop could 'surf' on its own wave and form what we called a 'walker,'" said Couder. "A walker is an object having some properties due to the drop, together with others due to the wave. The walker's wave is similar to the surface wave of a raindrop falling on a puddle, but here it is emitted periodically by the bouncing drop."

To detect the walker's interference with itself, Couder and Fort glued three thick strips to the bottom of a cell placed in a tank, reducing the depth of the liquid above the strips. The intervals between two strips acted as a diffracting slit, much like the slits in the original double-slit experiment. The scientists observed that the wave emitted by the droplet "interfered with its own reflections," and that the droplet's normally straight trajectory deviated when passing through the slit. The remarkable feature was that even with identical initial conditions, the deviation of a given individual walker appeared random, while the deviation of many walkers revealed an interference pattern (Figure 2).

"There is a mysterious aspect to the single particle interference experiments in quantum mechanics," Couder said. "When you have two slits, a single particle passes through one or the other (as checked experimentally by Grangier and Aspect). But interference patterns can also be observed as if each single particle had passed through both slits. In quantum mechanics, both measurements cannot be performed simultaneously. If one measures through which slit the particle passes, no interference is observed. But if one observes the interference, then everything is as if the particle had passed through both slits. These results are entirely predicted in the formalism of theoretical quantum mechanics, even though it is difficult to get an intuition for them.

"In our macroscopic experiment, even though we can observe the whole trajectory, we recover two features of the quantum mechanics experiments," Couder continued. "For one, the individual deviation of a given walker becomes uncertain because of the spatial limits imposed on its wave. Also, interference patterns are recovered in the statistics of successive individual events."

While the scientists observed that each droplet went through only one slit or the other, the associated wave travels through both slits, with the wave interferences determining the walker's trajectory. When creating a histogram (Figure 2) based on the walkers' deviations, the scientists found that the graph highly resembled that of a plane wave. In other words, this interference of the waves generated both individual uncertainty and statistical determinism in the trajectories of the material particles formed by the drops.

Choppy Inflation Turns Geocentricity Into An Illusion...¹

In October 2013 a paper of geocentric importance appeared on the arXiv web site. Entitled "Spectral Distortion in a Radially Inhomogeneous Cosmology," the paper's abstract reads as follows:

¹ Caldwell, R.R., and N. A. Maksimova, 2013. "Spectral Distortion in a Radially Inhomogeneous Cosmology," arXiv:1309.4454v2 [astro-ph.CO] 15 Oct 2013.

The spectral distortion of the cosmic microwave background blackbody spectrum in a radially inhomogeneous spacetime, designed to exactly reproduce a Λ CDM expansion history along the past light cone, is shown to exceed the upper bound established by COBE-FIRAS by a factor of approximately 3700. This simple observational test helps uncover a slew of pathological features that lie hidden inside the past light cone, including a radially contracting phase at decoupling and, if followed to its logical extreme, a naked singularity at the radially inhomogeneous Big Bang.

This techno babble could use some interpretation. Fortunately, the first paragraph of the paper is more illuminating.

Is the Universe playing fair with us? Are the laws of physics and the structure of space-time the same everywhere? It is a fundamental tenet of the Standard Cosmological Model that the answer is yes. Yet the difficulty of explaining the physics of cosmic acceleration forces a new scrutiny of many of our most cherished assumptions. If the structure of space-time is not the same everywhere, if in fact we occupy a privileged location in space and time at the center of a spherical bulge of matter and curvature, then it may be possible to explain a vast catalog of observational data without the need to invoke new physical effects such as dark energy.

First, note the last sentence: dark energy exists only to keep us away from the center of creation. If the universe is geocentric, there is no need to postulate the extremely troublesome dark energy.

Next, the reference to a “fundamental tenet of the Standard Cosmological Model” refers to what is commonly called the **Copernican Principle**, which says in effect, we will dismiss all evidence of geocentricity whatever it takes. This is the “cherished assumptions” referred to in the above quote. The use of the plural, “assumptions” is interesting because there is really only one cherished assumption; all the rest are simply “explanations” invented to dismiss the geocentric evidence.

Like most attempts to force the facts to fit the cherished assumption, as well as those that oppose the cherished assumption, cosmologists pick a *metric*. Now a metric is nothing more than the form the Pythagorean theorem takes in the model universe’s assumed geometry. You pick the metric that gives you the desired answer and then you embellish it with equations and text and wait to see how popular your geometry becomes. The metric the authors select is the Lemaitre-Tolman-Bondi space-time.

The authors then violate the Cosmological Principle and put themselves at the center of their universe, which is evident from the number of times the word, “radial” occurs in their abstract. Next they postulate that when light decoupled from the Big Bang’s energy due to the cooling effect of its expansion, that there was a period of deflation, that is, a “radially contracting phase” (see abstract).

When all is said and done, the whole theory hinges on the assumption that the light we see is a blend of light that decoupled at our position and time with light that decoupled further away from us, caught up with “our” light, and thus appears hotter than the light flowing to us at the closest point to the decoupling surface. The authors then assume that the light has had enough time to scatter off dust and other atoms which scattering distorts the blackbody radiation that we observe today. *Strangely, as the authors picture it, their theory seems only to work if we are at the center.* That is why they had to violate the Copernican Principle at the start of their analysis. Remember: they had to pick the metric and geometry that would make their theory match observation.

Earth May Be Heavier Than Thought

A study of GPS satellite orbits suggests the earth is heavier than thought. Of course, the first conclusion leapt to by the discoverers is that the additional mass may be due to dark matter.

Current theory holds that dark matter makes up about 80 per cent of the universe’s matter, but astronomers have been unable to determine much else about it, including its presence in the solar system. The problem is that, when viewed as “missing mass” instead of excess mass, we find that the scale on which we are examining the mass determines the percentage of excess or missing mass. For instance, in the Milky Way, the mass that is “missing” is 10% of the mass determined by star counts. When it comes to a cluster of galaxies, the missing mass is closer to 90%. As far as I know, there is no hint of a missing mass either in star clusters or the solar neighborhood.

According to the news report, in 2009 researchers at the Institute of Advanced Studies in Princeton, N.J., speculated that observed changes in the speeds of space probes as they flew past the earth may be explained by dark matter bound by earth’s gravity. Now Ben Harris at the University of Texas at Arlington studied orbiting satellites to see if dark matter might be affecting them.

To accomplish his goal, Harris used data on satellite orbits of American global positioning satellites, Russian GLONASS, and the European Galileo groups. He then calculated earth’s mass as “felt” by each satellite. His research yielded an average weight of the earth between 0.005 and 0.008 per cent greater than the value for earth’s

mass established by the International Astronomical Union.

“This could be explained in there were a disk of otherwise undetectable dark matter around the earth’s equator 120 miles thick and 45,000 miles wide,” Harris concluded. The “excess” mass is roughly 10^{22} grams compared to earth’s mass of the order of 10^{27} grams. A very rough calculation by your editor allows that this mass is consistent with the missing mass of the Milky Way. That may be coincidental; but more likely it may be so because Harris used the Milky Way’s “missing mass” value to size his invisible dark-matter disk about the earth.

Finally, when it comes to the orbiting speeds of stars in a galaxy, it is usually assumed that the speed depends linearly on the mass interior to the star’s orbit around the center of the galaxy. However, this may not be so for it assumes that all the mass is concentrated at the central point. It is more accurate to consider the mean density inside the sphere with a radius of the star’s orbit. When we do so, we can more readily account for the observed fact that the rotation curve (which curve traces the average speed of the stars as one goes out from the center of the galaxy) does not behave the way Newton’s gravitational formula predicts.

Earth is Still Unique²

Astronomers call them super-earths, and they are abundant outside our solar system. But the more experts learn about them, the more special our earth seems in comparison. Of course, according to geocentricity the earth is not a planet, but astronomers don’t acknowledge that, even though the evidence that it’s not a planet keeps piling up more and more. Planets the size of earth and up to four times larger are believed to make up about three-quarters of the planet candidates discovered by NASA’s Kepler spacecraft.

Astronomers have eagerly catalogued some 3,000 of these planets in the hopes that they may point to the existence of life elsewhere in the galaxy. But experts told a meeting of the American Astronomical Society outside the US capital on Monday that while super-earths and mini-Neptunes are common, they bear little resemblance to the earth.

“Our solar system seems to be different. All these planets that Kepler has found, they are strange,” said Yoram Lithwick of Northwestern University. “Twenty to 30 percent of all stars have these crazy planets.”

Super-earths and mini-Neptunes that are more than two and a half times the radius of earth “must be covered with lots and lots of gas, which is the most surprising result,” said Lithwick. He studied about 60 such planets and found that they likely formed “very quickly after

² Washington (AFP) Jan 06, 2014.

the birth of their star, while there was still a gaseous disk around the star.”

“By contrast, earth is thought to have formed much later, after the gas disk disappeared,” he said. Not only are many of these planets hotter than earth, having a huge amount of gas covering their rocky core would result in extreme atmospheric pressure.

“It would be like being below 10 oceans here on earth,” said Geoff Marcy of the University of California, Berkeley. Asked if life could exist under such conditions, Marcy told reporters he had asked some of his friends who are biology experts the same question. In short, they were not sure.

“It is not impossible,” he said. “We know very little about how life got started and in what environments it might flourish.” Since Kepler cannot return any data about mass, astronomers have learned to study it through alternate methods, like making Doppler measurements of the planets’ host stars, seeing how they wobble as a result of the gravitational tug from the orbiting planet.

Planets with higher mass make for more intense wobbling because they exert a greater gravitational tug on their stars. David Kipping, of the Harvard-Smithsonian Center for Astrophysics, described his team’s latest discovery of a planet called KOI-314C in a presentation called “An earth-mass world nothing like home.” Located some 200 light years away, “a stone’s throw by Kepler’s standard,” the planet orbits its star every 23 days. The planet’s temperature is about 220 degrees Fahrenheit (104 Celsius), and it is coated in an atmosphere of hydrogen and helium hundreds of miles thick. The planet is one of three in a mini solar system, in which the cohabitants “kick each other, they perturb each other frequently,” he told reporters.

Since it is relatively close, Kipping said he hopes further study with the Hubble space telescope or its successor, the James Webb Space Telescope to be launched in 2018, could shed more light on its characteristics. Another prospect for further research is the super-earth exoplanet GJ 1214b, some 40 light years away, which is believed to be covered with clouds, according to researcher Laura Kreidberg at the University of Chicago.

Its atmosphere lacks water, methane or carbon dioxide, and its clouds could be made of zinc sulfide and potassium chloride, she said. At the conference, astronomers announced 70 new planet confirmations, 16 mass determinations from Doppler follow-up observations and five new rocky planets.

NASA’s Kepler space telescope launched in 2009 on a mission to find earth-like planets by observing transits, or dimming in light, as they passed in front of their stars. It is no longer fully operational, having lost traction in the second of its four orienting wheels last year, but astronomers hope it will be able to continue offering limited observa-

tions of distant worlds.

The symphony of life, revealed³

Using a new imaging technique they developed, scientists have managed to observe and document the vibrations of lysozyme, an antibacterial protein found in many animals. Figure 3 illustrates the vibrations in lysozyme as it is excited by terahertz (trillion cycles per second) light which is depicted by the red wave coming in from the right. The arrow illustrates the Lysozyme's vibrational reaction. Such vibrations have long been thought to exist, but have never before been described in such detail, said lead researcher Andrea Markelz, a UB physicist.



Figure 3: *Light & Lysozyme Interaction* (Credit: Andrea Markelz & Katherine Niessen)

The strings on a violin or the pipes of an organ, the proteins in the human body vibrate in different patterns, scientists have long suspected. Now, a new study provides what researchers say is the first conclusive evidence that this is true. Using a technique they developed based on terahertz near-field microscopy, scientists from the University at Buffalo and Hauptman-Woodward Medical Research Institute (HWI) have for the first time observed in detail the vibrations of lysozyme, an antibacterial protein found in many animals.

The team found that the vibrations, which were previously thought to dissipate quickly, actually persist in molecules like the “ringing of a bell,” said UB physics professor Andrea Markelz, PhD, who led the study. These tiny motions enable proteins to change shape quickly so they can readily bind to other proteins, a process that is necessary for the body to perform critical biological functions like absorbing oxygen, repairing cells and replicating DNA, Markelz said.

The research opens the door to a whole new way of studying the basic cellular processes that enable life.

³ http://www.terraily.com/reports/The_symphony_of_life_revealed_999.html. The findings appeared in *Nature Communications* on Jan. 16, 2014.

“People have been trying to measure these vibrations in proteins for many, many years, since the 1960s,” Markelz said. “In the past, to look at these large-scale, correlated motions in proteins were a challenge that required extremely dry and cold environments and expensive facilities...Our technique is easier and much faster. You don’t need to cool the proteins to below freezing or use a synchrotron light source or a nuclear reactor—all things people have used previously to try and examine these vibrations.”

To observe the protein vibrations, Markelz’ team relied on an interesting characteristic of proteins: the fact that they vibrate at the same frequency as the light they absorb. This is analogous to the way wine glasses tremble and shatter when a singer hits exactly the right note. Markelz explained: Wine glasses vibrate because they are absorbing the energy of sound waves, and the shape of a glass determines what pitches of sound it can absorb. Similarly, proteins with different structures will absorb and vibrate in response to light of different frequencies.

So, to study vibrations in lysozyme, Markelz and her colleagues exposed a sample to light of different frequencies and polarizations, and measured the types of light the protein absorbed. This technique, developed with Edward Snell, a senior research scientist at HWI and assistant professor of structural biology at UB, allowed the team to identify which sections of the protein vibrated under normal biological conditions. The researchers were also able to see that the vibrations endured over time, challenging existing assumptions.

“If you tap on a bell, it rings for some time, and with a sound that is specific to the bell. This is how the proteins behave,” Markelz said. “Many scientists have previously thought a protein is more like a wet sponge than a bell: If you tap on a wet sponge, you don’t get any sustained sound.”

Markelz said the team’s technique for studying vibrations could be used in the future to document how natural and artificial inhibitors stop proteins from performing vital functions by blocking desired vibrations. “We can now try to understand the actual structural mechanisms behind these biological processes and how they are controlled,” Markelz said. “The cellular system is just amazing,” she said. “You can think of a cell as a little machine that does lots of different things - it senses, it makes more of itself, it reads and replicates DNA, and for all of these things to occur, proteins have to vibrate and interact with one another.”

Brown Dwarfs: Stellar Still Births?⁴

It seems that when the Lord created the stars and planets on the fourth day of creation he did not make planets of one size and stars of another. He made a continuum of astronomical bodies insofar as sizes were concerned. Jupiter, for instance, is not massive enough to ever become a star. Jupiter and most planets in our solar system do radiate more light into space than they receive from the sun.

With the Kepler spacecraft that looked for planets around other stars, we find that most planets are much larger than Jupiter. This may, in part, be a selection effect because planets the mass of Jupiter may be below the limit of detection at the outer limits of Kepler's range. A planet the mass of Jupiter needs to be roughly ten times more massive for it to start fusing hydrogen into helium; that is, to be classified as a star.

Thus the Lord made astronomical bodies range in size from smaller than a dust grain to stars so large that if they were in the sun's place, they could hold the orbits of Uranus or Neptune inside themselves. And when it comes to black holes, they can be even larger. We really have no upper limit that we've observed insofar as I have seen reported.

As we consider increasingly more massive bodies, we find a kind of star called a brown dwarf. Its surface temperature may be only hundreds of degrees and so they may be brighter in the infrared than they are in the visible spectrum. This makes them assume a reddish-brown color.

In my research I came upon a paper that argues that brown dwarfs are between planets and full-blown stars and that we should consider them as a third class of celestial body, fitting between stars and planets. Here is a report on the research. Of course, I disagree totally with the report's evolutionary bias.

The systematics of celestial bodies apparently needs to be revised. Researchers at the Argelander Institute of Astronomy of the University of Bonn have discovered that brown dwarfs need to be treated as a separate class in addition to stars and planets. To date they had been merely regarded as stars which were below normal size. However, they may well be stellar "miscarriages."

Brown dwarfs (or BDs) are what astronomers call objects which populate the galaxies apart from the stars. Unlike the latter, they cannot develop high-yield hydrogen fusion as in the interior of our sun due to their low mass (less than about 8% of the sun's mass). But in addition

⁴ Theis, Ingo, and Pavel Kroupa. 2008. "Stellar Still Births," Univ. of Bonn web site, now expired. <http://arxiv.org/abs/0808.2644>.

to this, brown dwarfs and stars also seem to behave differently when two or more objects orbit each other.

Stars often occur in pairs, which orbit around each other. The orbits can vary a great deal one from another. Sometimes the orbit is less than one radius of the earth-sun orbit, which is known as an "Astronomical Unit: AU.). However, the two partners can be separated by as much as many thousands of AUs. "Things are different with brown dwarfs," astrophysicist Ingo Thies of the Bonn Argelander Institute of Astronomy explains. "The orbital radiuses of BD pairs are cut off above about 15 AUs; brown dwarf pairs with greater separations are the exception."

What is more, there are hardly any mixed pairs consisting of suns and brown dwarfs—far fewer than expected. This phenomenon is also known as the "brown dwarf desert."

"According to the classical model there ought not to be these differences," Professor Pavel Kroupa of the Argelander Institute explains. The evolutionary reasoning expects that since both brown dwarfs and stars emerge from the same interstellar cloud of dust and gas, their gravitational fields should bring them together. Thus these celestial bodies should behave in similar ways.

Despite this contradiction the astronomic community has persistently stuck to the theory of a joint origin. However, Thies and Kroupa have now shown empirically that brown dwarfs must be regarded as a class of objects which is separate from the stars. In other words, they act in a manner not expected by standard evolutionary theories.

"For this we analyzed the masses of newly-born stars, Thies explains. "This revealed a jump in the distribution of mass which makes the division in the stellar population apparent."

So, how are brown dwarfs formed? As long ago as 2001 the Danish researcher Bo Reipurth, Britain's Cathie Clarke and the Spanish astronomer Eduardo Delgado-Donate proposed that brown dwarfs could be regarded as stellar "miscarriages." This started with a system of three embryonic stars that destabilizes because of their mutual attractions, and the lightest object is catapulted out of the system. The physical mechanism itself has long been known: for instance, the U.S. space probes Pioneer and Voyager used Jupiter and other planets as slingshots to hurl them off to their voyage of no return.

Another theory has it that brown dwarfs form in the outermost regions of the star formation volumes and become separated from them. This can, for example, occur as the result of a close encounter with a third star. Since almost all stars are theoretically born in star clusters, such encounters are not unusual. It is also possible that both theories of cosmic miscarriages take place.

Both theories predict that brown dwarfs can only emerge at the birth of stars—similar to the theory of planet formation, incidentally.

Thus there seem to be three quite different celestial bodies: planets, brown dwarfs, and stars.

And that's the report. Note the problems arising in evolutionary theory: cloud dynamics appears violated; half of the brown dwarfs will indeed be thrown out by passing stars, but the other half will go deeper into the cloud.

BORN A LUTHERAN

Eino, a Finn from Cook County in northern Minnesota, was an older single gentleman who was born and raised a Lutheran. Each Friday night after work he would fire up his outdoor grill and cook a venison steak. Now all of Eino's neighbors were Catholic and since it was Lent they were forbidden from eating meat on Fridays. The delicious aroma from the grilled venison steaks was causing such a problem for the Catholic faithful that they finally talked to their priest.

The priest came to visit Eino, and suggested that Eino convert to Catholicism. After several classes and much study, Eino attended mass and as the priest sprinkled holy water over Eino, he said, "You were born a Lutheran and raised a Lutheran, but now you are Catholic."

Eino's neighbors were greatly relieved, until Friday night arrived, and the wonderful aroma of grilled venison filled the neighborhood. The neighbors called the priest immediately and as he rushed into Eino's yard, clutching a rosary and prepared to scold Eino, he stopped in amazement and watched.

There stood Eino, clutching a small bottle of water which he carefully sprinkled over the grilling meat while chanting: "You were born a deer, and raised a deer, but now you are a walleye."

Chairman Mao shot homosexuals and made them pay for the bullet that killed them. This is largely unknown in the west and was covered up [by our socialist media —*Ed*], as it was not under the auspices of the Bible but under the socialist ethics of China.

—Reported by D. K. Lifschultz

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BALL LIGHTNING UPDATE

In the last issue we covered a theory for the origin of ball lightning. This was done in response to a picture of ball lightning that graced the cover of *The Biblical Astronomer* no. 141. The picture was taken by Rhetta Hall near Aurora, Ohio.

Around the end of January 2014, we had the severest cold spell in twenty years. Temperatures dove to 20 below zero Fahrenheit. The air was dry and windy.

The Snow Rollers

I received a call from Rhetta telling me of snow rollers that were covering the ground for miles around. She also wanted me to check on the church's water lines. Thus my wife, Beth and I drove to church to check on conditions there. We arrived about 4:00 in the afternoon. On our way we had seen many snow rollers, but the wind was not strong enough to blow the rollers across open territory (see Figure 1).



Figure 1: *Snow Rollers*

Snow rollers form in dry snow where the wind is strong enough to push the snow along. A thin layer of snow is picked up and the diameter of the roll increases. I picked up a snow roller and found it very light and fragile. It weighed next to nothing. From its structure I concluded that the accumulation of the thin layers of snow was probably electrostatic.

The official cause of snow rollers is not electrostatic. A light thaw is necessary to start the process. After a thin layer of ice forms on the surface of the snow, a high wind picks up the thin ice and starts to roll it up like a jellyroll. An individual snow roller can range from

about 4 inches in diameter to over a foot. The official version says that the snow under the thin ice layer must be near packing temperature (that is, a wet snow) but the air temperature when the rollers were active was near or below zero Fahrenheit (-19°C).

Well, that was Monday, 27 January. Wednesday, Rhetta handed me copies of four pictures she had taken in the vicinity of her house after dark on the 27th. Her goal was to get some decent pictures of the snow rollers, but her phone camera kept washing out the details. When I looked closely at them I couldn't believe my eyes: there were dozens of ball lightning spheres in the pictures (see font cover).

On the front cover, the focus is on the ball lightning. What is surprising in this picture is how the balls play with the light from the flash. We can see the normal pastel colors in the lightning balls, but we can also see light reflection and refraction inside the balls. The contrast has been modified and the image was sharpened but I did not otherwise change the colors.

In a larger version of this picture which is centered about 2.4 inches from the top and from 0.25 to 1.25 inches from the right margin, it looks as if some of the lightning balls are partway into the snow. I would be more certain of this if it were not for the presence of quite a few snow rollers in the picture.

Form these observations I conclude that the Halls live in an unusual area that generates ball lightning. No one has ever been hurt by any of the balls according to Rhetta and her family. From all this, I tentatively conclude that the presence of many small balls discourages the formation of large, destructive balls.

The Dissolution?

From the 1950s and into the 21st century, Harold Aspden studied various electrical phenomena. Circa 1972 he wrote a book entitled, *Modern Ether Science*.¹ In the book Aspden proposes a plenum ether. Among the benefits of his plenum model; Aspden lists that his version accounts for ball lightning. Unfortunately, his claim was never substantiated with equations, as far as I know. Harold died in 2011 and his wife has posted his books and summaries of his papers on the web at haroldaspden.com.

A summary of a 1981 paper entitled "The Enigma of Ball Lightning,"² said the following:

[The] phenomenon of ball lightning within aircraft and the reported sightings of luminous balls leaving the body of the aircraft

¹ Aspden, H., 1972. *Modern Ether Science*, (Sabberton Publications).

² Aspden, H. 1981. "The Enigma of Ball Lightning," *The Jnl. of Meteorology UK*, 6:258.

and hovering on the wings...show that the balls are not quasi-stable objects comprising nothing other than ionized air. There has to be an underlying energy medium in spin that develops an electric or magnetic attraction holding the bounding sphere to the wing.

Harold Aspden believed that a medium of infinite density, a plenum, which fills the universe and that electromagnetic forces caused by the plenum's wave and cyclical behavior creates ball lightning as well as other phenomena. Of course, our environment has a created plenum we call the firmament. That is why we consider the phenomena in these issues so significant.

Now, consider the following picture that Rhetta took that day. This picture was taken about 30 seconds after the one on the cover. It looks like one or more of the balls dissolved into a cloud.



If you look closely at the cover photo you will see a faint ball partway up the leftmost branch. The ball that is at the center of this picture may be the same ball. These “thunderballs,” as Aspden called them, appear to be more fragile than those he reported in the above quote.

This picture leaves us with several questions: how did these balls disrupt? Or if the cloud was not due to the disruption of the balls, what is it? Finally, has anyone ever documented such a field of thunderballs as we see in Mark and Rhetta Hall's yard?

CREDO

The Biblical Astronomer was founded in 1971 as the Tychonian Society. It is based on the premise that the only absolutely trustworthy information about the origin and purpose of all that exists and happens is given by God, our Creator and Redeemer, in his infallible, preserved word, the Holy Bible commonly called the King James Bible. Any scientific endeavor which does not accept this revelation from on high without any reservations, literary, philosophical or whatever, we reject as already condemned in its unfounded first assumptions.

We believe that the creation was completed in six twenty-four hour days and that the world is not older than about six thousand years. We maintain that the Bible teaches us of an earth that neither rotates daily nor revolves yearly about the sun; that it is at rest with respect to the throne of him who called it into existence; and that hence it is absolutely at rest in the universe.

We affirm that no man is righteous and so all are in need of salvation, which is the free gift of God, given by the grace of God, and not to be obtained through any merit or works of our own. We affirm that salvation is available only through faith in the shed blood and finished work of our risen LORD and saviour, Jesus Christ.

Lastly, the reason why we deem a return to a geocentric astronomy a first apologetic necessity is that its rejection at the beginning of our Modern Age constitutes one very important, if not the most important, cause of the historical development of Bible criticism, now resulting in an increasingly anti-Christian world in which atheistic existentialism preaches a life that is really meaningless.

If you agree with the Credo, please consider becoming a member. Membership dues are \$35 per year.

To the law and to the testimony: if they speak not according to this word, it is because there is no light in them.

– Isaiah 8:20

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BOOKS AND DVDs

The Bible and Geocentricity, by Prof. James N. Hanson. A collection of articles, most of which made up the “Bible and Geocentricity” column in the early 1990s. Prof. Hanson has added numerous illustrations. (145 pages, 5.5x8.5 format) \$10

The Book of Bible Problems by G. Bouw. The most difficult “contradictions” in the Bible are answered without compromise. 266 pages, indexed. \$20

Geocentricity DVD. Martin Selbrede gives a presentation of geocentricity. \$18

Where in the Universe Are We? DVD by Philip Stott. We carried Stott’s videos until they were no longer produced. Recently they have been remastered for DVD. This DVD deals with geocentricity. \$25

Geocentricity, the Scriptural Cosmology, narrated by Dr. Bouw explains the seasons, retrograde motion and other phenomena using Pastor Norwalt’s Tyconic Orrery. Previously released as a VHS tape, it has been remastered to DVD. \$18

The Fixed Idea of Astronomical Theory, August Tischner. Reprint of the 1883 first edition of the book that exerted by far the most influence on geocentrist writers in the first quarter of the 20th century, and is the source of anti-Copernican testimonies of 19th century scientist. \$10

Thou Shalt Keep Them, ed. by Kent Brandenburg. A collection of papers powerfully defending the KJV translation of challenged readings, such as Psalm 12:6,7. Includes papers by Dr. Strouse. \$20

Why Cumbereth it the Ground? Kenneth Brooks examines the origins and shortfalls of Fundamentalism. \$17

(Product list continued on the inside front cover.)