Keyword: darkenergy

Is Earth AGAIN The Center of The Universe?

September 3, 2009 8:13:40 PM PDT · by **SeekAndFind** · **44 replies** · 977+ views

Christian Post ^ | 9/3/2009 | Allen J. Epling

I came across a news item in the USA Today website, dated August 18, that got my attention. It concerns "Dark Energy", the mysterious force that seems to be speeding up the expansion

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of the universe, that no one can find or explain. Two scientists say is doesn't exist now because of a "mathematical solution they have produced, that suggests it is a natural result of the Big Bang. Part of the article is reproduced here. "What's the answer? It doesn't exist, suggest mathematicians Blake Temple and Joel Smoller, in a study released Monday by the Proceedings of the National...

The day the universe froze; New dark energy model includes cosmological phase transition

May 8, 2009 1:40:50 PM PDT · by **Mike Fieschko** · **19 replies** · 424+ views

euarekalert.org ^ | May 8, 2009 | David F. Salisbury [?]

Imagine a time when the entire universe froze. According to a new model for dark energy, that is essentially what happened about 11.5 billion years ago, when the universe was a quarter of the size it is today. The model, published online May 6 in the journal Physical Review D, was

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Breaking News (News/Activism)

Justice Department Inspector General Launches Internal ACORN Probe

developed by Research Associate Sourish Dutta and Professor of Physics Robert Scherrer at Vanderbilt University, working with Professor of Physics Stephen Hsu and graduate student David Reeb at the University of Oregon. A cosmological phase transition -- similar to freezing -- is one of the distinctive aspects of this...

Study plunges standard theory of cosmology into crisis

May 5, 2009 7:17:29 AM PDT · by **decimon** · **32 replies** · 760+ views

http://www.eurekalert.org/pub_releases/2005/uob-sps050509.php ^ | May 5, 2009 | Unknown

As modern cosmologists rely more and more on the ominous "dark matter" to explain otherwise inexplicable observations, much effort has gone into the detection of this mysterious substance in the last two decades, yet no direct proof could be found that it actually exists. Even if it does exist, dark matter would be unable to reconcile all the current discrepancies between actual

Last day of summer brings snow, cold to Colorado (BHO addresses U.N. today on Global Warming)

Daily Presidential Tracking Poll (Sept. 22, Barack The Dear Leader is at -8)

Obama to push for new economic world order (Drudge Headline)

Terror arrest sparks gov't warning on mass transit

On the road again! October 25 – November 11 (TeaPartyExpressII!)

Democratic (and Obama) Fund-

measurements and predictions based on theoretical models. Hence the number of physicists questioning the existence of dark matter has been increasing for some time now. Competing theories of gravitation have already been developed which are independent of this...

Does Dark Energy Really Exist?: Or does Earth occupy a very unusual place in the universe? (LOL!)

March 29, 2009 6:32:33 PM PDT · by **GodGunsGuts** · **74 replies** · 2,405+ views

Scientific American ^ | March 2009 | Timothy Clifton and Pedro G. Ferreira

Does Dark Energy Really Exist? Or does Earth occupy a very unusual place in the universe? Scientific American, March 2009 By Timothy Clifton and Pedro G. Ferreira ... Most of us are very familiar with the idea that our planet is nothing more than a tiny speck orbiting a typical star, somewhere near the edge of an otherwise unnoteworthy galaxy. In the midst of a universe populated by billions of galaxies that stretch out to

Raiser Nemazee Indicted In $292 Million Fraud

Brazilian delegation in Honduras confirmed that Zelaya is in its embassy in this country-Live Thread

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EXPLOSIVE NEW AUDIO Reveals White House Using NEA to Push Partisan Agenda

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Front Page News (News/Activism)

our cosmic horizon, we are led to believe that there is nothing special or unique about our location. But what is the evidence for this...

New Data Suggests We Don't Live in a Void, and Supports Dark Energy

February 3, 2009 8:26:34 AM PST · by **Ernest_at_the_Beach** · **22 replies** · 487+ views

physorg.com ^ | January 28th, 2009 | Lisa Zyga

Temperature fluctuations in the cosmic microwave background, among other data, are helping researchers better understand the accelerating expansion of the universe. Image credit: NASA. (PhysOrg.com) -- An alternative proposal to dark energy in which the Earth sits near the center of a large void is undergoing scrutiny, and the results show that void models fit poorly with observed data. Nevertheless, scientists say that more research will be needed to determine if void models, dark energy, or something else can accurately explain

March on Media Atlanta, LA, Miami, San Diego, Seattle, Autin, Richmond, San Antonio and more

Israel Says All Options Still Open on Iran

Working Women/Will Not Be Silenced by Right Wing Attack Dogs-We Will Win the Change America Needs

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GOP lawmakers seek generals to lobby for Afghan

how the universe is expanding at an accelerating rate. Almost a decade ago, theorists proposed a void model as...

Astronomers Aim to Grasp Mysterious Dark Matter (In search of WIMPs)

December 29, 2008 2:46:01 PM PST · by **NormsRevenge** · **6 replies** · 408+ views

Space.com on Yahoo ^ | 12/29/08 | Clara Moskowitz

For the past quarter century, dark matter has been a mystery we've just had to live with. But the time may be getting close when science can finally unveil what this befuddling stuff is that makes up most of the matter in the universe. Dark matter can't be seen. Nobody even knows what it is. But it must be there, because without it galaxies would fly apart. Upcoming experiments on Earth such as the Large Hadron Collider (LHC) particle accelerator in Switzerland, and a new spacecraft called Gaia set to launch in 2011, could be the key to closing the...

Tsunami invisibility cloak, dark

war

ACORN probe is set [Maryland hoping to find a loophole for ACORN?]

Ahmadinejad Warns Against Any Attack On Iran

More U.S. troops to Afghanistan? Obama's caught in a vise

FDIC May Ask Banks for a Bailout

More ...

energy v. the void, sorting nanotubes with light, and more

September 26, 2008 4:30:39 AM PDT · by **decimon** · **12 replies** · 432+ views

American Physical Society ^ | Sep 26, 2008 | Unknown

Tsunami invisibility cloak, dark energy v. the void, sorting nanotubes with light, and moreNews from the American Physical SocietyTsunami Invisibility Cloak M. Farhat, S. Enoch, S. Guenneau and A.B. Movchan Physical Review Letters (forthcoming) Rather than building stronger ocean-based structures to withstand tsunamis, it might be easier to simply make the structures disappear. A collaboration of physicists from the Centre National de la Recherche Scientifique (CNRS) and Aix-Marseille Universite in France and the University of Liverpool in England have conducted laboratory experiments showing that it's possible to make type of dike that acts as an invisibility cloak that hides off-shore...

Do We Live in a Giant Cosmic Bubble?

September 30, 2008 3:23:48 PM PDT · by **decimon** · **35 replies** · 683+ views

SPACE.com ^ | Sep 30, 2008 | Clara Moskowitz

If the notion of dark energy sounds improbable, get ready for an even more outlandish suggestion. Earth may be trapped in an abnormal bubble of space-time that is particularly void of matter. Scientists say this condition could account for the apparent acceleration of the universe's expansion, for which dark energy currently is the leading explanation.

Mysterious Dark Matter Might Actually Glow

November 7, 2008 3:21:52 PM PST · by **SunkenCiv** · **9 replies** · 553+ views

SPACE.com ^ | Thursday, November 6, 2008 | Staff

Nobody knows what dark matter is, but scientists may now have a clue where to look for it. The strange stuff makes up about 85 percent of the heft of the universe. It's invisible, but

researchers know it's there because there is not enough regular matter -- stars and planets and gas and dust -- to hold galaxies and galaxy clusters together. Some other unseen material, dubbed dark matter, must be gluing things together... A new computer simulation of the evolution of a galaxy like our Milky Way suggests it might be possible to observe high-energy gamma-rays given off by...

Galaxy Surprise Sheds Light on Dark Matter

November 7, 2008 4:48:38 PM PST · by **SunkenCiv** · **16 replies** · 599+ views

Space.com ^ | August 27, 2008 | Clara Moskowitz

A study of small galaxies circling around the Milky Way found that while they range dramatically in brightness, they all surprisingly pack about the same mass. The work suggests there is a minimum size for galaxies, and it could shed light on mysterious dark matter. Spinning around the Milky Way are at least 23 pint-sized galaxies, each shining with

the light of anywhere from a thousand to a billion suns. Though each of these galaxies is very dim compared to large galaxies like our own, they span a large range in brightness. Astronomers led by Louis Strigari of the University...

Unknown "Structures" Tugging at Universe, Study Says [Dark Flow]

November 7, 2008 3:29:16 PM PST · by **SunkenCiv** · **73 replies** · 1,751+ views

National Geographic News ^ | November 5, 2008 | John Roach

Everything in the known universe is said to be racing toward the massive clumps of matter at more than 2 million miles (3.2 million kilometers) an hour -- a movement the researchers have dubbed dark flow. The presence of the extra-universal matter suggests that our universe is part of something bigger -- a multiverse -- and that whatever is out there is very different from the universe we know, according to study leader Alexander Kashlinsky, an astrophysicist at NASA's Goddard Space Flight Center in Maryland...

Dark flow was named in a nod to dark energy and dark matter -- two...

Mysterious New 'Dark Flow' Discovered in Space

September 25, 2008 8:58:58 AM PDT · by **nobama08** · **18 replies** · 675+ views

foxnews.com ^ | Thursday, September 25, 2008 | Clara Moskowitz

As if the mysteries of dark matter and dark energy weren't vexing enough, another baffling cosmic puzzle has been discovered. Patches of matter in the universe seem to be moving at very high speeds and in a uniform direction that can't be explained by any of the known gravitational forces in the observable universe. Astronomers are calling the phenomenon "dark flow." The stuff that's pulling this matter must be outside the observable universe, researchers conclude.

Mysterious New 'Dark Flow' Discovered in Space

September 23, 2008 4:46:02 PM PDT · by **NormsRevenge** · **37 replies** · 176+ views

Space.com on Yahoo ^ | 9/23/08 | Clara Moskowitz

As if the mysteries of dark matter and dark energy weren't vexing enough, another baffling cosmic puzzle has been discovered. Patches of matter in the universe seem to be moving at very high speeds and in a uniform direction that can't be explained by any of the known gravitational forces in the observable universe. Astronomers are calling the phenomenon "dark flow." The stuff that's pulling this matter must be outside the observable universe, researchers conclude. When scientists talk about the observable universe, they don't just mean as far out as the eye, or even the most powerful telescope, can see....

Monster galactic cluster seen in deep Universe: European agency

August 25, 2008 3:56:31 PM PDT · by **NormsRevenge** · **15 replies** · 174+ views

AFP on Yahoo ^ | 8/25/08 | AFP

PARIS (AFP) – An orbiting observatory has spotted a massive

cluster of galaxies in deep space that can only be explained by the exotic phenomenon known as dark energy, the European Space Agency (ESA) said on Monday. Spotted in a scan by ESA's orbiting X-ray telescope XMM-Newton, the cluster's mass is about 1,000 times that of our own galaxy, the Milky Way, it said. The huge cluster, known by its catalogue number of 2XMM J083026+524133, lies 7.7 billion light years from Earth and helps confirm the existence of dark energy, the agency said. Under this hypothesis, most of the Universe...

Dark, Perhaps Forever (Is the theory of everything unattainable?)

June 4, 2008 11:07:19 AM PDT · by **LibWhacker** · **88 replies** · 131+ views

New York Times ^ | 6/3/08 | Dennis Overbye

BALTIMORE — Mario Livio tossed his car keys in the air. They rose ever more slowly, paused, shining, at the top of their arc, and then in accordance with everything our

Galilean ape brains have ever learned to expect, crashed back down into his hand. That was the whole problem, explained Dr. Livio, a theorist at the Space Telescope Science Institute here on the Johns Hopkins campus. A decade ago, astronomers discovered that what is true for your car keys is not true for the galaxies. Having been impelled apart by the force of the Big Bang, the galaxies, in...

A Test of the Copernican Principle (the principle has never been confirmed)

May 22, 2008 5:05:41 PM PDT · by **LibWhacker** · **6 replies** · 142+ views

PhysOrg ^ | 5/22/08 | Lisa Zyga

The Copernican principle states that the Earth is not the center of the universe, and that, as observers, we don't occupy a special place. First stated by Copernicus in the 16th century, today the idea is wholly accepted by scientists, and is an assumed concept in many astronomical theories.However, as physicists Robert Caldwell of

Dartmouth College in Hanover, New Hampshire, and Albert Stebbins of Fermilab in Batavia, Illinois, point out, the Copernican principle has never been confirmed as a whole. In a recent paper published in Physical Review Letters called “A Test of the Copernican Principle,” the two researchers...

Physicists Renew Claim, in New Experiment, of Detecting Dark Matter Particles

April 17, 2008 11:38:51 PM PDT · by **neverdem** · **9 replies** · 68+ views

NY Times ^ | April 17, 2008 | DENNIS OVERBYE

A team of Italian and Chinese physicists on Wednesday renewed a controversial claim that they had detected the mysterious dark matter particles that astronomers say swaddle the galaxies in halos and direct the evolution of the universe. The team, called Dama, from “DArk MAtter,” and led by Rita Bernabei of the University of Rome, has maintained since 2000 that a yearly modulation in

the rate of flashes in a detector nearly a mile underneath the Gran Sasso mountain in Italy is the result of the Earth's passage through a "wind" of dark matter particles as it goes around the Sun....

"Dark Energy" Dominates The Universe

January 3, 2003 6:35:40 AM PST · by **forsnax5** · **46 replies** · 306+ views

Dartmouth College ^ | January 2, 2003 | Brian Chaboyer, Lawrence Krauss

DARK ENERGY DOMINATES THE UNIVERSE HANOVER, NH - A Dartmouth researcher is building a case for a "dark energy"-dominated universe. Dark energy, the mysterious energy with unusual anti-gravitational properties, has been the subject of great debate among cosmologists. Brian Chaboyer, Assistant Professor of Physics and Astronomy at Dartmouth, with his collaborator Lawrence Krauss, Professor of Physics and Astronomy at Case Western Reserve University, have reported their finding in the January 3,

2003, issue of Science. Combining their calculations of the ages of the oldest stars with measurements of the expansion rate and geometry of the universe lead them to conclude...

'Shot in the Dark' Star Explosion Stuns Astronomers

December 18, 2007 10:07:29 AM PST · by **crazyshrink** · **39 replies** · 89+ views

EurekAlert ^ | 12/18/07 | Astronomers

When a shot is fired, one expects to see a person with a gun. In the same way, whenever a giant star explodes, astronomers expect to see a galaxy of stars surrounding the site of the blast. This comes right out of basic astronomy, since almost all stars in our universe belong to galaxies. Image right: The robotic Palomar 60-inch telescope imaged the afterglow of GRB 070125 on January 26, 2007. Right: An image taken of the same field on February 16 with the 10-meter Keck I telescope reveals no trace of an afterglow, or a host galaxy. The white...

Have we sealed the universe's fate by looking at it?

November 21, 2007 10:55:16 AM PST · by **crazyshrink** · **97 replies** · 62+ views

EurekAlert ^ | 21-Nov-2007 | Lawrence Krauss

HAVE we hastened the demise of the universe by looking at it? That's the startling question posed by a pair of physicists, who suggest that we may have accidentally nudged the universe closer to its death by observing dark energy, which is thought to be speeding up cosmic expansion. Lawrence Krauss of Case Western Reserve University in Cleveland, Ohio, and colleague James Dent suggest that by making this observation in 1998 we may have caused the universe to revert to a state similar to early in its history, when it was more likely to end. "Incredible as it seems, our...

In 'Dark Energy,' Cosmic Humility (Mysterious Force Expanding Universe Ever Faster)

September 23, 2007 7:07:18 AM PDT · by

PJ-Comix · 40 replies · 263+ views

Newsweek ^ | October 1, 2007 | Sharon Begley

To the ancients, exploding stars were bad news. To astronomer Adam Riess, poring over data from a telescope in Chile, it looked like supernovas were still cursed. He and his colleagues were measuring the brightness and distance of supernovas in order to figure out the little matter of whether the universe would end in fire or in ice. Would it halt its expansion and collapse back on itself in a gnab gib (that's the reverse of the big bang, and passes for humor among astronomers) or expand forever, its light and warmth fading into eternal cold and darkness? But when...

Dark matter behaves in an unexpected way

August 28, 2007 11:51:06 AM PDT · by **SunkenCiv · 36 replies** · 329+ views

arstechnica ^ | August 17, 2007 | Chris Lee

Radiation was used to pinpoint the normal matter, while the observation

of gravitational lensing was used locate dark matter. Gravitational lensing allows matter to be oberved, even when it does not emit or absorb light, by examining the movement of galaxies as our line of sight passes through the area of interest. Massive objects will distort the image and cause it to move in unexpected directions. Because the normal matter could interact through electromagnetic radiation, it was found to have slowed violently during the collision while the dark matter sailed on through... In the meantime, other astronomers began using gravitational...

Is dark energy lurking in hidden spatial dimensions?

July 16, 2007 12:26:58 PM PDT · by **SunkenCiv** · **16 replies** · 517+ views

New Scientist ^ | Monday, July 16, 2007 | Stephen Battersby

The mysterious cosmic presence called dark energy, which is accelerating the expansion of the universe, might be lurking in hidden dimensions of space. The idea would

explain how these dimensions remain stable - a big problem for the unified scheme of physics called string theory... quantum vibrations in the vacuum of space (called vacuum energy or the cosmological constant) that could produce repulsive gravity... should either possess a ridiculously high energy density - 122 orders of magnitude larger than are observed - or cancel out to exactly zero. To make them almost-but-not-quite cancel, in agreement with astronomical observations, means fudging...

Mysteries of dark matter and bad hair days at Mac

May 14, 2007 5:32:08 AM PDT · by **SunkenCiv** · **8 replies** · 196+ views

Hamilton Spectator ^ | Monday, May 14, 2007 | Rob Faulkner

...More than 100 scientists from across the globe are descending on McMaster University today... just 5 per cent of the universe is made up of matter we've long known about -- atoms, light, etc. The rest is mysterious dark matter (25 per cent)

and the more recently discovered dark energy (70 per cent)... "For the first time in the history of man, it's possible to figure out the total energy in the universe, and the big news is that atoms are at most 5 per cent of what's out there," says Cliff Burgess, Mac professor of physics and astronomy, and...

Universal Accord {Cosmology}

April 5, 2007 2:48:17 PM PDT · by **LibWhacker** · **40 replies** · 765+ views

Symmetry Magazine ^ | March 2007 | Rachel Courtland

Take one part unidentified goop. Add three parts mysterious energy. Throw in a dash of ordinary atoms. Mix. Compress. Explode. Let expand for 13.7 billion years. It's an absurd recipe, but it's one that makes cosmologists drool. Ten years ago, no one could agree on what the universe is made of, how it is shaped, or what its ultimate fate will be. But less than five years later, long-awaited measurements and one stunning discovery forever transformed our

picture of the universe. The resulting model, often called the concordance model, holds that 22 percent of the universe is composed of dark...

First Dark Matter, Then Dark Energy, Now a Dark Force?

January 9, 2007 12:12:54 AM PST · by **SunkenCiv** · **7 replies** · 331+ views

Scientific American 'blogs ^ | January 8, 2007 | George Musser

The poster child for dark matter, which got a lot of attention last summer, is the Bullet Cluster of galaxies... What's less well known is that the smaller of the two colliding clusters is a cluster in a hurry, zipping along at 4700 kilometers per second... Farrar... and her graduate student Rachael Rosen estimated a few months ago that gravity should have accelerated the cluster to maybe 3000 km/s. Even if the cluster had an improbable combination of elongated shape, high initial velocity, and special viewing geometry, it should move no faster than 3400 km/s. Farrar concluded that some new...

Mysterious force's long presence

November 16, 2006 7:22:01 PM PST · by **Jedi Master Pikachu** · **26 replies** · 445+ views

BBC ^ | November 16, 2006

Dark energy - the mysterious force that is speeding up the expansion of the Universe - has been a part of space for at least nine billion years. That is the conclusion of astronomers who presented results from a three-year study using the Hubble Space Telescope. The finding may rule out some competing theories that predict the strength of dark energy changes over time. Dark energy makes up about 70% of the Universe; the rest is dark matter (25%) and normal matter (5%). "It appears this dark energy was already boosting the expansion of the Universe as much as...

Scientists Examine 'Dark Energy' of Antigravity

November 16, 2006 4:27:32 PM PST · by **SunkenCiv** · **9 replies** · 324+ views

New York Times ^ | November 16, 2006 | Dennis Overbye

Now a group of astronomers using the Hubble Space Telescope have discovered that billions of years before this mysterious antigravity overcame cosmic gravity and sent the galaxies scooting apart like muscle cars departing a tollbooth, it was already present in space, affecting the evolution of the cosmos... The new results, Dr. Riess and others said, provide new clues and place new limits on the nature of dark energy, a mystery that has thrown physics and cosmology into turmoil over the last decade... The data suggest that in fact dark energy has changed little, if at all, over the course of...

Hubble telescope makes new discovery

November 16, 2006 9:07:52 PM PST · by **NormsRevenge** · **88 replies** · 3,491+ views

AP on Yahoo ^ | 11/16/06 | Matt Crenson - ap

NEW YORK - The Hubble Space Telescope has shown that a mysterious form of energy first conceived by Albert Einstein, then

rejected by the famous physicist as his "greatest blunder," appears to have been fueling the expansion of the universe for most of its history. This so-called "dark energy" has been pushing the universe outward for at least 9 billion years, astronomers said Thursday. "This is the first time we have significant, discrete data from back then," said Adam Riess, a professor of astronomy at Johns Hopkins University and researcher at NASA's Space Telescope Science Institute. He and several colleagues...

NASA Finds Direct Proof of Dark Matter

August 21, 2006 6:13:30 PM PDT · by **vikingd00d** · **93 replies** · 2,414+ views

NASA News ^ | 21 Aug 2006 | Erica Hupp

Dark matter and normal matter have been wrenched apart by the tremendous collision of two large clusters of galaxies. The discovery, using NASA's Chandra X-ray Observatory and other telescopes, gives direct evidence for the existence of dark matter. "This is the most

energetic cosmic event, besides the Big Bang, which we know about," said team member Maxim Markevitch of the Harvard-Smithsonian Center for Astrophysics in Cambridge, Mass. These observations provide the strongest evidence yet that most of the matter in the universe is dark. Despite considerable evidence for dark matter, some scientists have proposed alternative theories for gravity where it...

What if Black Holes Didn't Exist?

July 23, 2006 1:05:35 PM PDT · by **LibWhacker** · **39 replies** · 1,467+ views

Seed Magazine ^ | 7/21/06 | Richard Morgan

How an alternate theory of the universe exposes the 'war of words' that underlies modern cosmology. Theoretical physicists have recently been frustrated by a bold hypothesis concerning black holes—specifically, that they don't exist. In March, at the 22nd Pacific Coast Gravity Meeting in Santa Barbara, Calif., George Chapline, an applied physicist at

Lawrence Livermore National Laboratory, gave a talk based on ideas he's been incubating for several years. His goal: to amend astrophysics by applying theories of dark energy and condensed matter physics. His work reinvents black holes as so-called "dark energy stars," which are what is left over when...

In the Dark on Matter - Fabulous Matter and Energy

March 10, 2006 12:40:15 AM PST · by **Swordmaker** · **20 replies** · 218+ views

Feb 28, 2006 In the Dark on Matter Fabulous Matter and Energy Since there is no experimental or observable evidence that dark matter exists, is it just a prop for the beleaguered big bang theory? This highly speculative construct is now combined with one just as fabulous--dark energy--to shore up current cosmological dogma.Credit NASA/CXC/M.Weiss Above: Chandra X-Ray Observatory estimates of the “total energy content of the Universe”. Only "normal matter” can be directly detected with

telescopes. The rest of the matter and energy is invisible. In the 1930s, astronomers Fritz Zwicky and Sinclair Smith were puzzled by the motions they...

Three cosmic enigmas, one audacious answer [bye-bye to black holes?]

March 9, 2006 8:34:42 PM PST · by **snarks_when_bored** · **103 replies** · 2,301+ views

New Scientist ^ | March 9, 2006 | Zeeya Merali

Three cosmic enigmas, one audacious answer 09 March 2006 Exclusive from New Scientist Print Edition Zeeya Merali DARK energy and dark matter, two of the greatest mysteries confronting physicists, may be two sides of the same coin. A new and as yet undiscovered kind of star could explain both phenomena and, in turn, remove black holes from the lexicon of cosmology. The audacious idea comes from George Chapline, a physicist at Lawrence Livermore National Laboratory in California, and Nobel laureate Robert Laughlin of

Stanford University and their colleagues. Last week at the 22nd Pacific Coast Gravity Meeting in Santa Barbara,...

Dark Matter: Hidden Mass Confounds Science, Inspires Revolutionary Theories

January 15, 2002 7:02:17 AM PST · by **PatrickHenry** · **151 replies** · 1,110+ views

Reuters ^ | 08 January 2002 | Andrew Chaikin

Once upon a time -- a bit more than 100 years ago -- many scientists believed that seemingly empty space wasn't empty at all, but was filled with a substance called luminous ether. This mysterious stuff, never seen in any laboratory on Earth, was thought to explain how gravity from one celestial body could affect another. By the end of the 19th century, though, luminous ether had gone the way of countless other scientific misconceptions. Today, another mysterious substance beguiles astronomers, and this one isn't going away. In fact, it's been at the forefront

of cosmological theories for decades. It's ...

Studies Suggest Unknown Form of Matter Exists

July 30, 2002 9:43:53 PM PDT · by **gcruse** · **6 replies** · 505+ views

New York Times ^ | July 31, 2002 | James Glanz

Painstaking observations of a kind of subatomic dance suggest that the universe may contain a shadowy form of matter that has never been seen directly and is unexplained by standard physics theories, a team of scientists working at Brookhaven National Laboratory on Long Island announced yesterday. The studies appear to confirm similar findings the scientists reported last year. The research involves muons, rare subatomic particles similar to electrons but 207 times as heavy. The work has been controversial, though for reasons that have little to do with the experiment itself. Theorists who are not involved in the research, but whose...

Chandra Discovers "Rivers Of Gravity" That Define Cosmic Landscape

August 2, 2002 4:41:48 PM PDT · by **vannrox** · **59 replies** · 903+ views

ScienceDaily Magazine ^ | Thursday, August 01, 2002 | Editorial Staff

Reprinted from ScienceDaily Magazine
...Source: NASA/Marshall Space Flight Center Date Posted: Thursday, August 01, 2002Web Address: http://www.sciencedaily.cor
Chandra Discovers "Rivers Of Gravity" That Define Cosmic Landscape NASA's Chandra X-ray Observatory has discovered part of an intergalactic web of hot gas and dark matter that contains most of the material in the universe. The hot gas, which appears to lie like a fog in channels carved by rivers of gravity, has been hidden from view since the time galaxies formed. "The Chandra observations, together with ultraviolet observations, are a major advance in our understanding of how the universe

evolved over the last 10 billion...

Earth's magnetic field 'boosts gravity'

September 23, 2002 11:11:32 AM PDT · by **VadeRetro** · **117 replies** · 1,462+ views

New Scientist ^ | 09:20 22 September 02 | Michael Brooks

Exclusive from New Scientist Hidden extra dimensions are causing measurements of the strength of gravity at different locations on Earth to be affected by the planet's magnetic field, French researchers say. This is a controversial claim because no one has ever provided experimental evidence to support either the existence of extra dimensions or any interaction between gravity and electromagnetism. But lab measurements of Newton's gravitational constant G suggest that both are real. Newton's constant, which describes the strength of the gravitational pull that bodies exert on each other, is the most poorly determined of the constants of nature. The two...

An Introduction to Zero-Point Energy

February 28, 2003 2:59:02 PM PST · by **sourcery** · **283 replies** · 1,472+ views

CalPhysics.org ^

Quantum physics predicts the existence of an underlying sea of zero-point energy at every point in the universe. This is different from the cosmic microwave background and is also referred to as the electromagnetic quantum vacuum since it is the lowest state of otherwise empty space. This energy is so enormous that most physicists believe that even though zero-point energy seems to be an inescapable consequence of elementary quantum theory, it cannot be physically real, and so is subtracted away in calculations. A minority of physicists accept it as real energy which we cannot directly sense since it is the...

Extra Dimensions Showing Hints Of Scientific Revolution

February 19, 2003 9:18:15 AM PST · by **RightWhale** · **73 replies** · 948+ views

spacedaily.com ^ | 19 Feb 03 | staff

Extra Dimensions Showing Hints Of Scientific Revolution Chicago - Feb 19, 2003 The concept of extra dimensions, dismissed as nonsense even by one of its earliest proponents nearly nine decades ago, may soon help solve seemingly unrelated problems in particle physics, cosmology and gravitational physics, according to a panel of experts who spoke Feb. 15 at the American Association for the Advancement of Science annual meeting in Denver. "It doesn't happen often that you get a confluence of ideas and experiments that come together and it's something that obviously would change your whole way of looking at the universe,"...

Florida Physicist Says Dark Matter, Extra Dimensions Related And Possibly Detectable

May 20, 2003 9:56:23 AM PDT · by **RightWhale** · **40 replies** · 432+ views

spacedaily.com ^ | 19 May 03 | staff

Florida Physicist Says Dark Matter, Extra Dimensions Related And

Possibly Detectable the universe is the "twilight zone" Gainesville -May 19, 2003 A team of scientists that includes a University of Florida physicist has suggested that two of the biggest mysteries in particle physics and astrophysics -- the existence of extra time and space dimensions and the composition of an invisible cosmic substance called dark matter -- may be connected. "For the most part, these two questions have been treated separately in the past, and for the first time we're making a direct link," said Konstantin Matchev, a UF assistant...

Universe 'Could Condense Into Jelly'

September 6, 2001 4:07:20 PM PDT · by **blam** · **159 replies** · 704+ views

BBC ^ | 9-6-2001 | Helen Briggs

Thursday, 6 September, 2001, 10:39 GMT 11:39 UK Universe 'could condense into jelly' By BBC News Online's Helen Briggs The Universe may be in a state where matter could disintegrate at any moment, a scientist has warned. But the probability is less than that of buying two lottery tickets

in the same week that both win the lottery, said Dr Benjamin Allanach of the European laboratory for particle physics, CERN, in Geneva. "The fact that the Universe has existed for 15 billion years should tell you it's not likely to happen tomorrow," he told the British Association Festival of Science ...

"Dark energy" might not exist, scientists say

February 28, 2006 10:17:49 AM PST · by **SunkenCiv** · **13 replies** · 325+ views

World Science ^ | Feb. 14, 2006 | some geek who doesn't have a Valentine

...The proposal bears an odd parallel to another modified-gravity theory that has emerged in recent years, and which seeks to explain another dark entity: "dark matter." Not unlike dark energy, dark matter is an unseen substance that astronomers believe pervades the cosmos, but it is different. Dark matter, which would comprise more than 90% of the weight of the universe, is thought to betray its existence through its

gravitational pull on nearby objects. Somewhat similarly to what is happening with dark energy, some cosmologists have also devised modified-gravity theories in past years to explain these phenomena.

Is dark energy changing?

January 13, 2006 3:38:06 AM PST · by **PatrickHenry** · **18 replies** · 675+ views

Nature Magazine ^ | 12 January 2006 | Geoff Brumfiel,

Contrary to all expectations, the mysterious dark energy that is pushing the Universe apart may be changing with time. By observing distant, powerful bursts of gamma rays (gamma-rays), Brad Schaefer says he has preliminary evidence that the strength of dark energy is different today from when the Universe was very young. Schaefer, an astronomer at Louisiana State University in Baton Rouge, presented his results at an American Astronomical Society meeting in Washington DC. Just minutes after the data were presented in a late afternoon session, some

astronomers were already calling the bold claim into question. An idea that arose in...

Analysis of dark energy through modeling and inversion of 3-D gravity tensor field

October 28, 2005 9:45:05 AM PDT · by **Red Badger** · **51 replies** · 917+ views

India Daily ^ | 10/27/2005 | India Daily Science team

Volume-holographic optical imaging instrument with the capability to return three-dimensional spatial as well as spectral information about semi-translucent microscopic objects in a single measurement is in use in different parts of the world for the last three years. The four-dimensional volume-holographic microscope is characterized theoretically and experimentally by use of fluorescent micro-spheres as objects. According to some scientists working under classified projects these special instruments are revealing secrets of the nature that can be totally bizarre to our knowledge of science and

technology. These four-dimensional volume-holographic optical imaging instrument with the capability to return three-dimensional spatial as well as spectral...

Finding a Way to Test for Dark Energy [Cosmology]

August 30, 2005 4:55:36 AM PDT · by **PatrickHenry** · **17 replies** · 756+ views

PhysOrg.com ^ | 29 August 2005 | Staff

What is the mysterious dark energy that's causing the expansion of the universe to accelerate? Is it some form of Einstein's famous cosmological constant, or is it an exotic repulsive force, dubbed "quintessence," that could make up as much as three-quarters of the cosmos? Scientists from Lawrence Berkeley National Laboratory (Berkeley Lab) and Dartmouth College believe there is a way to find out. n a paper to be published in Physical Review Letters, physicists Eric Linder of Berkeley Lab and Robert Caldwell of Dartmouth show that physics models of dark energy can be separated into

distinct scenarios, which could be...

Scientists Battle 'Dark Energy' Theory of Universe

March 22, 2005 12:53:13 PM PST · by **faq** · **32 replies** · 1,192+ views

Yahoo News, Reuters ^ | March 22, 2005 | Phil Stewart

ROME (Reuters) - A small group of physicists are battling what they see as the cosmological equivalent to the bogeyman: an enormous dark force, that nobody has ever seen, driving galaxies apart. Conventional wisdom holds that the mysterious force, called "dark energy," may make up 70 percent of the universe, and could be the determining factor in whether it is eventually destroyed billions of years from now. But Italian and American cosmologists are offering a controversial alternative to explain the accelerating expansion of the universe. They say it's not dark energy, but an overlooked after-effect of the "Big Bang" --...

Giant space-time ripples may cause cosmic expansion

March 19, 2005 5:16:19 AM PST · by **snarks_when_bored** · **27 replies** · 1,089+ views

New Scientist (U.K.) ^ | March 18, 2005 | Maggie McKee

Giant space-time ripples may cause cosmic expansion* 17:43 18 March 2005 * NewScientist.com news service * Maggie McKee Dark energy is not necessary to explain the accelerating expansion of the universe observed by astronomers, suggest controversial new calculations. Instead, gigantic ripples in space-time - larger than the observable universe - may be the cause. Astronomers have known since the 1920s that space itself has been expanding since the big bang about 14 billion years ago. But in 1998, they discovered the expansion must have sped up about a billion years ago, based on observations of supernovae that appeared farther away...

Was Einstein right when he said he was wrong?

March 16, 2005 11:59:50 AM PST · by

PatrickHenry · 140 replies · 2,888+ views

PhysOrg.com ^ | 16 March 2005 | Staff

Why is the universe expanding at an accelerating rate, spreading its contents over ever greater dimensions of space? An original solution to this puzzle, certainly the most fascinating question in modern cosmology, was put forward by four theoretical physicists, Edward W. Kolb of the U.S. Department of Energy's Fermi National Accelerator Laboratory, Chicago (USA): Sabino Matarrese of the University of Padova; Alessio Notari from the University of Montreal (Canada); and Antonio Riotto of INFN (Istituto Nazionale di Fisica Nucleare) of Padova (Italy). Their study was submitted yesterday to the journal Physical Review Letters. Over the last hundred years, the expansion...

Leaking Gravity May Explain Cosmic Puzzle

February 28, 2005 6:29:00 PM PST · by **AntiGuv · 69 replies** · 2,783+ views

SPACE.com ^ | February 28, 2005 | Sara

Goudarzi

WASHINGTON, D.C. - Scientists may not have to go over to the dark side to explain the fate of the universe.The theory that the accelerated expansion of the universe is caused by mysterious "dark energy" is being challenged by New York University physicist Georgi Dvali. He thinks there's just a gravity leak.Scientists have known since the 1920s that the universe is expanding. In the late 1990s, they realized that it is expanding at an ever-increasing pace. At a loss to explain the stunning discovery, cosmologists blamed it on dark energy, a newly coined term to describe the mysterious antigravity force...

Big bang sound waves explain galaxy clustering

January 12, 2005 11:50:49 AM PST · by **snarks_when_bored** · **69 replies** · 1,785+ views

New Scientist ^ | January 12, 2005 | Maggie McKee

Big bang sound waves explain galaxy

clustering 13:32 12 January 2005 NewScientist.com news service Maggie McKee, San Diego Sound waves that roared through space after the big bang left behind a subtle imprint in the way galaxies are clustered today, reveal two major studies. The results bolster the standard theory that the universe is flat, and measuring the distance between the sound ripples may provide a new cosmic yardstick to probe the past. Two independent teams mapping the universe have found that galaxies are currently huddled together slightly more often at distances of 500 million light years as a...

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