DISCOVER
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Attention Stargazers: The Universe Shines Twice as Brightly as We Think.

A group of astronomers in the U.K., Germany, and Australia have determined that the universe is actually twice as bright as previously

thought. The reason we've been kept in the dark for so long, say the scientists, is because only around half of the light generated by the stars actually reaches us, while the rest is blocked by dust.

Astronomers have long known that dust grains are floating in space, absorbing starlight and re-emiting it to create that starry glow we see in telescopes and on clear nights. They also knew that the older models of dust distribution in galaxies were incorrect, since the energy output these models calculated was greater than the total amount of energy produced by all the stars combined.

So the research team took a new model, created by Dr. Cristina Popescu of the University of Central Lancashire and Richard Tuffs of the Max Plank Institute, and plugged in data from the Millennium Galaxy Catalogue, a "state-of-the-art high resolution catalogue of 10,000 galaxies." They found that the model's equations were dead-on, and its accuracy enabled them to calculate the exact amount of starlight from other galaxies—as well as the corresponding energy output— that had been previously obscured by the roving dust.

Incredibly, the found that the universe is a serious nuclear energy contender, producing 5 quadrillion watts of energy per cubic light year—about 300 times the average amount of energy consumed by all humankind.

May 15th, 2008 by Melissa Lafsky in Space | 2 comments | RSS feed | Trackback >

2 Responses to "Attention Stargazers: The Universe Shines Twice as Brightly as We Think."

1. *Kin* Says:
   May 20th, 2008 at 11:04 am

   That's a little confusing. 300 times the average amount of energy consumed by all humankind…yearly? And they don't say the energy the universe produces. Is that by per second, per month, per year that it produces 5 quadrillion watts.

   But, still, interesting

2. *Dean Pigeon* Says:
   May 26th, 2008 at 3:10 pm

   After looking up how much electriciy mankind used in 2005, it seems this article is refering to 300 times the amount of energy consumed by mankind in one year.

   A Watt is a Joule per Second. A Joule is a unit of energy. A watt is energy produced per amount of time passed, just like velocity is a rate of distance traveled per time passed. Asking how many watts are produced per month is like asking how many miles per hour you went per month. What you really want to ask is, how many Joules are produced per month? Not how many Watts. In the same way, you would ask how many miles you went per month, not how many M.P.H. you went per month.

A Watt is a unit of power (power is not energy, power is the RATE at which energy is being produced). 5 quadrillion Joules per Second, multiplied by any amount of time in seconds, tells you how much energy was produced by an average cubic light year of the universe in that amount of time. For example, to find the energy produced by one average cubic light year of the universe, you would take 5,000,000,000,000,000 and multiply it by 365 * 24 * 60 * 60 (which is 31,536,000 seconds). This gives you 1.5768 * 10^23 Joules of energy produced in one year by the average cubic light year of the universe.

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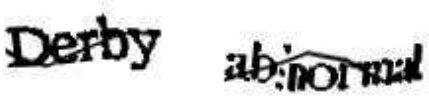

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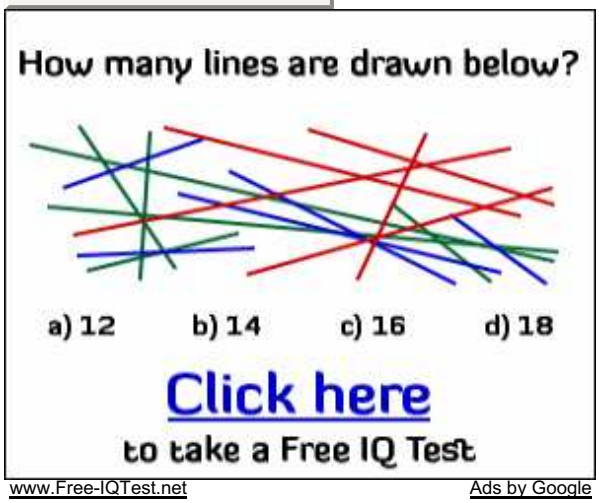

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- **About the Blog**

Discoblog is DISCOVER's compendium of offbeat science news, rounded up daily from the edge of the known universe. The blog is written by:

- Amos Kenigsberg
- Melissa Lafsky
- Andrew Moseman

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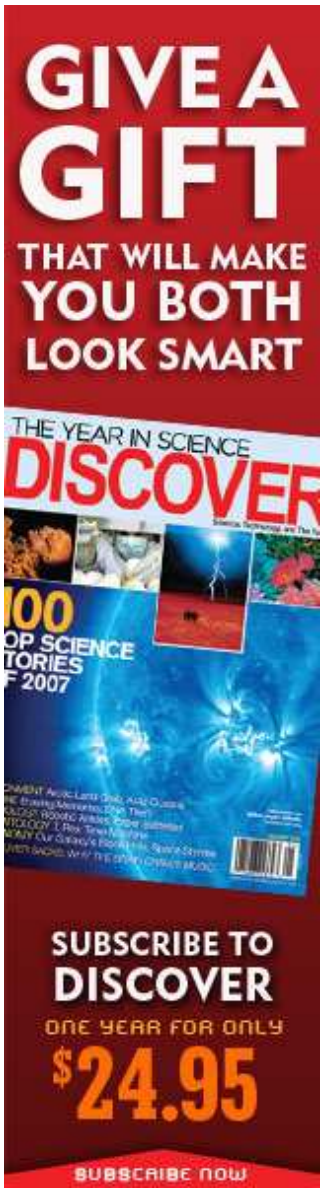

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