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TRACKING TRENDS & PERFORMANCE IN BASIC RESEARCH

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2008 : September 2008 - New Hot Papers : Lyman Page

NEW HOT PAPERS - 2008
September 2008


Lyman Page talks with *ScienceWatch.com* and answers a few questions about this month's New Hot Paper in the field of Space Science.


Article Title: Three-year Wilkinson Microwave Anisotropy Probe (WMAP) observations: Polarization analysis

Authors: Page, L;Hinshaw, G;Komatsu, E;Nolta, MR;Spergel, DN; Bennett, CL;Barnes, C;Bean, R;Dore, O;Dunkley, J;Halpern, M;Hill, RS; Jarosik, N;Kogut, A;Limon, M;Meyer, SS;Odegard, N;Peiris, HV;Tucker, GS;Verde, L;Weiland, JL;Wollack, E;Wright, EL

Journal: ASTROPHYS J SUPPL SER

Volume: 170

Issue: 2

Page: 335-376

Year: JUN 2007

* Princeton Univ, Dept Phys, Jadwin Hall, Princeton, NJ 08544 USA.

* Princeton Univ, Dept Phys, Princeton, NJ 08544 USA.

* NASA, Goddard Space Flight Ctr, Greenbelt, MD 20771 USA.

(addresses have been truncated)

SW: Why do you think your paper is highly cited?

The measurement of the polarization of cosmic microwave background (CMB) is a new field and this paper sets the stage for future observations.

SW: Would you summarize the significance of your paper in layman's terms?

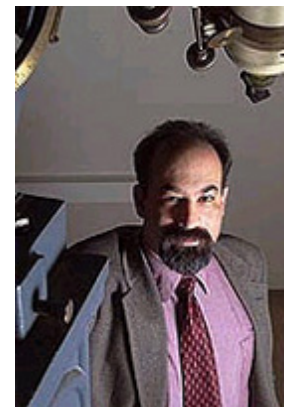
We measure the polarization in light left over from the Big Bang over large swaths of sky. The degree of polarization tells us when the first stars formed. Armed with this information, we can account for the "screen" between us and the "surface of last scattering" and begin to probe the quantum mechanics of the infant universe.

SW: How did you become involved in this research, and were there any problems along the way?

I've been in the field since graduate school. I was one of the designers of the satellite, WMAP, that gave us the data.

SW: Where do you see your research leading in the future?

Learning more about the Big Bang and the physics of the early universe.



Coauthor:
David N. Spergel
(see [links](#) below)

SW: Do you foresee any social or political implications for your research?

Mostly social. The study of the universe on its largest scales and earliest times is now a well-established scientific field in the academic community. This will take a while to become a component of what society in general views as science.

Prof. Lyman A. Page Jr.

Dept. of Physics

Princeton University

Princeton, NJ, USA

Wilkinson Microwave Anisotropy Probe (WMAP) [1](#) | [2](#)

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- Charles Bennett in past features; [1](#) | [2](#) | [3](#)
- Edward L. Wright in past features; [1](#) | [2](#)
- [Licia Verde](#) in a past feature
- SCI-BYTES (archived) as the [Hot Paper in Physics](#) (First-year Wilkinson Microwave Anisotropy Probe (WMAP) Observations..."

Keywords: cosmic microwave background polarization, Big Bang, quantum mechanics, infant Universe, Wilkinson Microwave Anisotropy Probe.



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