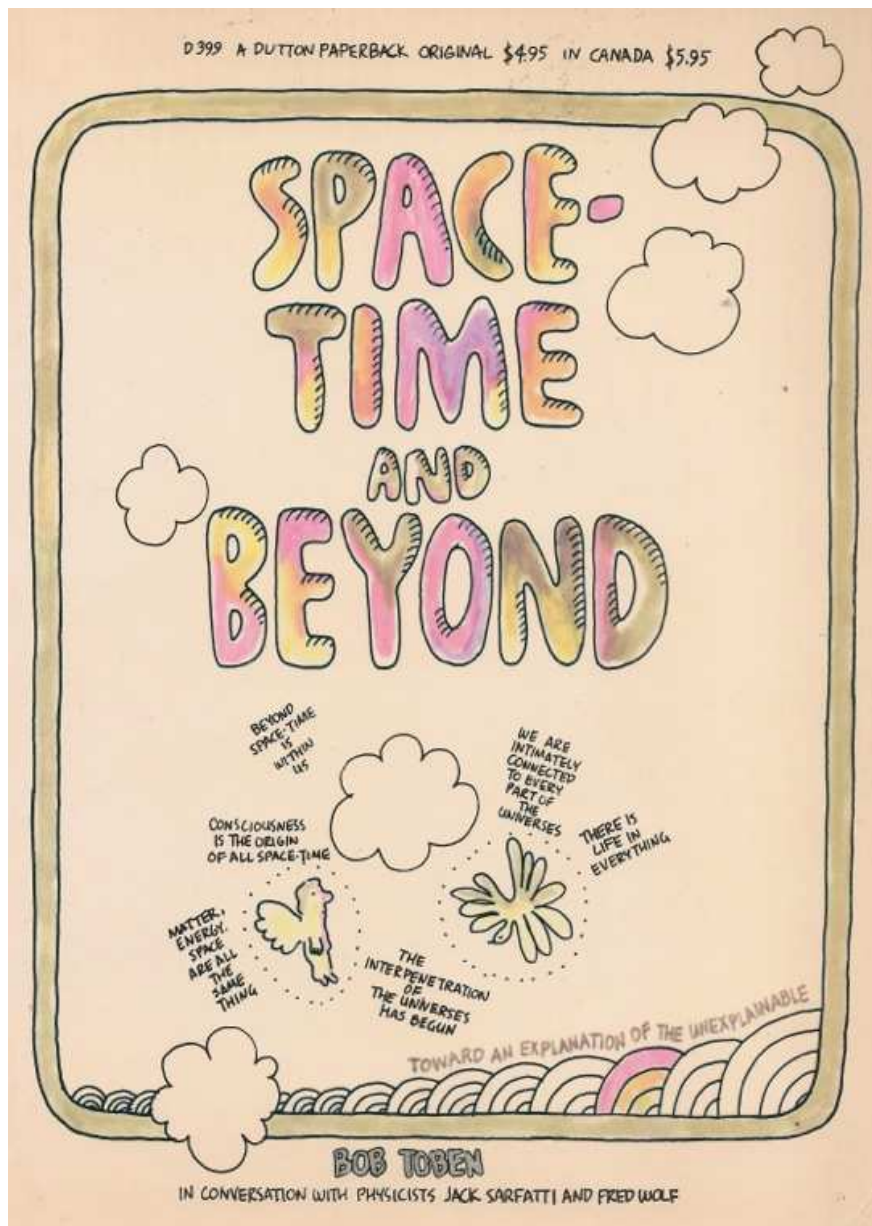


From: JACK SARFATTI jacksarfatti@icloud.com
Subject: Fwd: ER = EPR 1974!
Date: November 18, 2013 at 4:21 PM
To:
Bcc: JACK SARFATTI jacksarfatti@icloud.com

Begin forwarded message:

From: JACK SARFATTI <jacksarfatti@icloud.com>
Subject: Re: ER = EPR 1974!
Date: November 18, 2013 at 4:17:37 PM PST
To: Creon Levit <creon.levit@nasa.gov>



TELEPATHY



MESSAGES CAN TRAVEL
THROUGH WORMHOLES IN
THE SEA OF SPACE

THESE ARE BEYOND SPACE-TIME,
SO DISTANCE IS MEANINGLESS,
AS IS TIME !



All things are interconnected. Each part of three-dimensional space is connected to every other part through basic units of interconnection, called wormholes. Signals move through the constantly appearing and disappearing (virtual) wormhole connections, providing instant communication between all parts of space. These signals can be likened to pulses of nerve cells of a great cosmic brain that permeates all parts of space. This is a point of view motivated by Einstein's general relativity in the form of geometrodynamics. A parallel point of view is given in the quantum theory as interpreted by Bohm. In my opinion, this is no accident because I suspect that general relativity and quantum theory are simply two complementary aspects of a deeper theory that will involve a kind of cosmic consciousness as the key concept. Bohm writes of a "quantum interconnectedness":

It is generally acknowledged that the quantum theory has many strikingly novel features, including discreteness of energy and momentum, discrete jumps in quantum processes, wave-particle duality, barrier penetration, etc. However, there has been too little emphasis on what is, in our view, the most fundamentally different new feature of all, i.e. the intimate interconnection of different systems that are not in spatial contact. This has been especially clearly revealed through the, by now, well known experiment of Einstein, Podolsky and Rosen. . . .

Recently interest in this question has been stimulated by the work of Bell, who obtained precise mathematical criteria, distinguishing the experimental consequences of this feature of "quantum interconnectedness of distant systems."

D. BOHM and A. HILEY, "On the Intuitive Understanding of Non-Locality as Implied by Quantum Theory" (preprint, Birkbeck College, University of London, 1974).

Bell's criterion for quantum interconnectness was experimentally tested in the 1973 Harvard

doctoral dissertation of A. Holt. Holt's result is that the quantum potential (hidden variable) interpretation of quantum theory due to de Broglie and Bohm agrees more closely with experiment than does the conventional interpretation, which denies the existence of hidden variables. There are several types of hidden variable interpretations. The most interesting possibility is that consciousness is the hidden variable that determines the cause of individual quantum transitions. The conventional quantum theory is a purely statistical theory that is totally unable to describe the cause of individual quantum transitions (quantum jumps).

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We now know that the pinch off need not be true.

When the wormholes pinch off that's orthodox quantum theory.

When they don't, that's post-quantum theory with Antony Valentini's "signal nonlocality"

Subquantum Information and Computation

Antony Valentini

(Submitted on 11 Mar 2002 (v1), last revised 12 Apr 2002 (this version, v2))

It is argued that immense physical resources – for nonlocal communication, espionage, and exponentially-fast computation – are hidden from us by quantum noise, and that this noise is not fundamental but merely a property of an equilibrium state in which the universe happens to be at the present time. It is suggested that 'non-quantum' or nonequilibrium matter might exist today in the form of relic particles from the early universe. We describe how such matter could be detected and put to practical use. Nonequilibrium matter could be used to send instantaneous signals, to violate the uncertainty principle, to distinguish non-orthogonal quantum states without disturbing them, to eavesdrop on quantum key distribution, and to outpace quantum computation (solving NP-complete problems in polynomial time).

Comments: 10 pages, Latex, no figures. To appear in 'Proceedings of the Second Winter Institute on Foundations of Quantum Theory and Quantum Optics: Quantum Information Processing', ed. R. Ghosh (Indian Academy of Science, Bangalore, 2002). Second version: shortened at editor's request; extra material on outpacing quantum computation (solving NP-complete problems in polynomial time)

Subjects: **Quantum Physics (quant-ph)**

Journal reference: Pramana – J. Phys. 59 (2002) 269–277

reference:

DOI: [10.1007/s12042-002-0117-1](https://doi.org/10.1007/s12042-002-0117-1)

DOI: [10.1007/s12045-002-0117-1](https://doi.org/10.1007/s12045-002-0117-1)
Report number: Imperial/TP/1-02/15
Cite as: [arXiv:quant-ph/0203049](https://arxiv.org/abs/quant-ph/0203049)
(or [arXiv:quant-ph/0203049v2](https://arxiv.org/abs/quant-ph/0203049v2) for this version)

On Nov 18, 2013, at 1:18 PM, JACK SARFATTI <adastra1@me.com> wrote:

in addition to ER = EPR there are precognitive remote viewings ? of modern string theory, & hologram universe

But there is also a lot of nutty, not even wrong, goofy really beyond the fringe stuff as well - mostly inspired by non-physicist artist Bob Toben. There is even Dennis Sciama's Mach Principle in there! ;-)
It was 1974 when written under the influence so to speak mostly in Paris.

When I have time I will excerpt the relevant snippets.

On Nov 18, 2013, at 12:37 PM, Levit, Creon (ARC-P) <creon.levit@nasa.gov> wrote:

Just ordered a copy of space time & beyond found with bookfinder.com for \$5

make sure it's the first edition - most of the good stuff from me is missing from the later editions.

On Nov 18, 2013, at 12:02 PM, JACK SARFATTI <adastra1@me.com> wrote:

<http://ggd2013.mpp.mpg.de/files/slides/jensen.pdf>

[Are entangled particles connected by wormholes? Support for the ...](#)

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by H Gharibyan - 2013 - Cited by 1

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ER=EPR conjecture. [Maldacena, Susskind]. Quantum corrections. [Barrella, et al] [Faulkner, et al]. Near-derivation of RT. [Lewkowycz, Maldacena]. EE and ...

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[The Reference Frame: Papers on the ER-EPR correspondence](#)

[motls.blogspot.com/2013/07/papers-on-er-epr-correspondence.html](#) ▼

Jul 9, 2013 - Yesterday, there was a one-page critical paper by Hrvoje Nikolić of Zagreb, Croatia, EU trying to criticize the **ER-EPR** correspondence. When I ...

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[Entanglement = Wormholes | Quantum Frontiers](#)

[quantumfrontiers.com/2013/06/07/entanglement-wormholes/](#) ▼

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[www.davidyerle.com/tag/epr-er/](#) ▼

Jun 13, 2013 - I recently read (and only partially understood) a very intriguing paper by Juan Maldacena and Leonard Susskind. These are big names: ...

[Does ER=EPR Preclude LQG? - Physics Forums](#)

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A recent paper by Maldacena and Susskind entitled "Cool horizons for entangled black holes" (<http://arxiv.org/abs/1306.0533>) argues that ...

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Sep 7, 2013 - ... Are entangled particles connected by wormholes? Support for the **ER=EPR** conjecture from entropy inequalities <http://arxiv.org/abs/1308.0289>.