

viXra.org and Reversal of a Paradigm Shift

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Abstract

In 1998-1999 two teams of astronomers, measuring the radiation from exploding supernova Ia (SNIa) stars, found that their predicted curves fell short of the measured values of magnitude m , or distance modulus $m-M$, for redshift $z \sim 0.5 - 1.0$. Instead of announcing incomplete theoretical models, and searching for an increase in the luminosity distance d_L , they used their free parameters and added more physical content to our universe of either Einstein's rejected λ or dark energy, to better fit the data. Such added contents also added acceleration to the expansion rate of our universe. The unwise acceptance of this added acceleration by the scientific community, now known as the acceleration paradigm shift, will become one of the greatest, and more costly, blunders of science.

It so happened in 1993, that this author had started the development of a new non-relativistic model of the universe and by 1998 could check his new model for its prediction of the magnitude of the SNIa data near redshift $z \sim 1$. Using the new computer model, a check on the first reported data, indicated the new model could predict the data with no addition of either λ or dark energy. As the development of the author's model continued, a long 20 year effort began to try to halt and reverse the acceleration paradigm. This paper describes the record of those efforts, and it adds another face of experience to most all of the major points of the "Why viXra?".

Reference Adjustments

To keep References of this record consistent with the submissions to the Alternate Cosmology Group, two papers on cosmology have already been submitted to viXra.org. Paper 1 *A New Expansion Model of Our Universe* [1], was my twelfth paper intended for, but blocked by, the Cornell arxiv.org. It will be described later.

Paper 2 *Our Universe Expands with the Arrow of Time* [2] presents the highlights of my new Book 3 on a closed model of the expansion of our universe, to be described later.

I Introduction

The author was impressed with his reading of "Why viXra?" and decided to offer the Alternate Cosmology Group (ACG) his first paper [1] announcing his third self-published book [2] on a new closed model for the expansion of our universe. The new book and paper certainly justify the existence and goals of the ACG and hopefully will promote sales of the book. The author is 88 years old with a modest income. At \$18.95 per book, the author will be satisfied to break even on the first printing of 500 books.

If the new model for the expansion of the universe is correct as claimed, a major goal is to recruit members of ACG to continue development of the new model and help reverse the shift of the acceleration paradigm. Some may wonder if the new model is correct, why has the author's efforts not already started the reversal. The answers to such

questions are given in the brief history of the author's failed attempts to penetrate the *wall* of the accepted paradigm. The reader should have a copy of "Why viXra?" open for reading the balance of this paper.

II Cosmology and the Learning Curve

The author had a course in general relativity for his MS degree in physics in 1957 and a thesis paper published on the clock paradox [4]. With a PhD in 1974, on retirement in 1985, from teaching chemical engineering at Wayne State University, interest in cosmology was re-awakened and new and old books on time and cosmology acquired.

From 1993 to 1999, many invited talks were attended at the university of Michigan, Physics and Astronomy colloquia. Also the first U of M Great Lakes Cosmology Workshop, April 2-4, 1993 was attended.

As study turned to model building, it was the discovery of the source of gravity that really launched the development of the new closed model for the expansion of the universe.

III Early Attempts to Get Published

In 1993, when development of the new model was starting well, a friend advised that no scientific journal would print my new non-relativistic expansion model. As the reader will see, his prediction was correct.

In 1993, in the early stages of development of the model, my first paper: *Expansion of the Universe with the Source of Time* was sent to The Astrophysical Journal and the managing editor, H. A. Abt replied 10/12/93 that the paper was too speculative for publication in this journal.

In 1995, while developing the photon delay effect, a second paper: *An Approximate Principle of Relativity* was sent to Nature. The assistant editor L. Sage replied 7/28/95, with a long but polite letter that the paper would not excite interest in a wide audience.

In 1996, while still trying to contrast the photon delay effect with relativity theory, a paper *Time in Trouble* was sent to Physical Review A and the editor B. Crasemann replied 2/21/96 with regret, that the paper could not be accepted.

Also in 1996, the same paper, *Time in Trouble*, was sent to Foundations of Physics and its editor A. van der Merwe replied 7/25/96 that the paper cannot be accepted.

Also in 1996, a letter was sent to Physics Today: *The Golemization of Relativity Theory* in response D. Mermim's two "ReferenceFrame" articles on the same subject. Editor S. G. Benka replied 1/9/97 and rejected the letter as original research.

In 1997, a different paper, but with title *Time in Trouble*, based on my MS in physics thesis[4] was sent to Physical Review A. The editor B. Crasemann replied 6/27/97 not to accept.

In 1998, a second paper was sent to Nature: *The Ultimate Clock Paradox*, and the same assistant editor replied 1/7/98 with essentially the same long polite letter and same words of rejection.

IV First Three Self-Published Books

To have a record, a DBA “Anoka Publishing” [listed in SPAN Resource Directory] was formed to self-publish the first 1995 (8 ½ x 11) book: *Time and Cosmology Creation and Expansion of Our Universe* [5].

In 1999, after further development of the model, the second book was self-published (8 ½ x 11): *The Evolution of Our Universe, via Spatial Condensation* [6]. Both books have been listed in Bowker’s: *Books in Print*. Some moneys were spent on advertisement there, but only about 10 copies of each have been sold.

Now in January, 2011, after completion of the new model, the third book (6 x 9): *Expansion of the universe, The Source of the Arrow of Time* is at the printers [3].

V Eleven Papers on arXiv.org

The year 1998 was a good year. The new supernova Ia data were beginning to be reported which, will allow the author to check out the new SC-model. Gus Evrard of U. of M informed me of the Los Alamos National Laboratories (lanl.gov) arxiv where one can archive papers free. Now if editors continue to reject submitted papers, they can be made available to the public.

Bertram Schwarzschild wrote an excellent article for Nature [7] summarizing the results of the two competing teams who were measuring the radiation from these exploding SNIa stars. His plot of the apparent magnitude m versus redshift z of the 18 low- z data of Hamuy, et al. and the 40 higher- z data of Perlmutter, et al, also made clear that their theoretical predicted curves fell well below the data at higher z , but adding small amounts of Einstein’s lambda could better fit the data. Schwarzschild even mentioned a possible acceleration of the expansion rate.

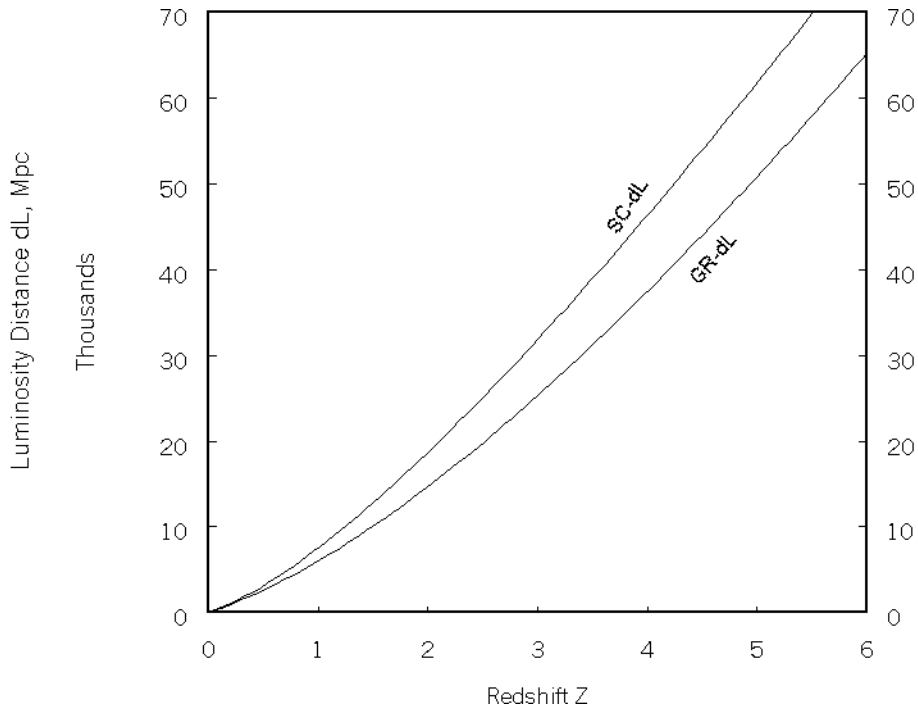


Fig. 1 Integration of their respective functions shows that GR- d_L falls short of SC- d_L . Apparent magnitude, m , is proportional to d_L and SC- $m(z)$ fits the data.-

Although these data were not yet available on the LBNL web site, the author generated an SC-curve of $m(z)$ and it was clear that it fit the data with no added contents. SC-theory generates a larger luminosity distance d_L than relativity as shown in Fig. 1,

The data of Schwarzschild's Hubble plot finally appeared as LBNL-41801 and a paper written, *Supernova Ia Without Lambda* on the SC-fit to the data and sent to The Astronomical Journal. The editor, Paul Hodge, replied 8/10/99 that the paper was inappropriate for publication

That paper was revised with title: "*Supernova Ia Predicted without the Cosmological Constant*" and a pdf version submitted to lanl.gov arxiv.org [8].

As the development of the SC-model progressed, a second paper with title: *A closed Non-collapsing 3-D Universe Predicting a New Source of Gravity and Dark ass* was sent to the Astronomical Journal and was rejected for the same reason. A pdf version, with same title, was also submitted to lanl.gov arxiv.org [9].

With added dimensions in the SC-model for the reality of additional spaces, one must be conscious of the different ways these spaces can expand. The added 4-D ball is essentially a static space. The distance between any two points in the deep interior of the 4-D ball doesn't change. All of the expansion occurs on the surface in the 4-D radial direction and the only motion of the 4-D ball space is that due to the changing dimples on the surface that produce gravity.

The expansion of our 3-D space is altogether different. There the distance r between any two points $r_2 - r_1$ expand as $v_H = Hr$ even in galaxies and even inside atoms. Of course an expansion force due to v_H is negligible inside atoms compared to EM forces, and even negligible inside galaxies compared to the gravitational force; however we will see, the expansion force can exceed gravity for $r \geq 1$ Mpc outside a large galaxy.

All points of our 3-D space are exposed to epi-space, and since photons travel on the 3-D-epi-interface those photons traveling from point r_2 toward point r_1 are in competition with expanding space as $v_c = Hr - c$.

Thus the production rate of 4-D space on the bare surface of the 4-D ball, and expansion rate of 3-D space, should be independent of our 3-D physics. On the other hand, a real expanding 3-D space should be manifest by its drag on passing matter.

A number of papers were written and sent to journals such as: AJ, ApJ, Phys. Rev. D, A&A, MNRAS [correspondence misplaced] and all were rejected, but then were sent to the lanl.gov arxiv. Among those was the paper with title: *Large-Scale Structure from Spatial Condensation and Reproducing Dark Mass* [10]

As the SC-model developed, seven more such papers were written, [11], [12], [13], [14], [15], [16], [17], and most submitted to such journals and were rejected and all were then submitted to lanl.gov arxiv, before management was transferred to Cornell.

My eleventh cosmology paper [18] with title: *Decelerated expansion or Future time comes to a halt*, explained why any accelerated expansion rate would drive future time toward zero instead of toward infinity in the future. The Cornell arXiv moved to this paper to the "physics" category just as explained in "Why viXra?"

My twelfth cosmology paper [n19] with title: *A New Expansion Model of Our Universe* explained why the cosmic microwave background (CMB) could never have been measured without the photon delay effect of the SC-model. The Cornell arXiv rejected this paper. The author appealed and the appeal was rejected.

Even worse, now I have been blocked from further submission to the Cornell arXiv, as per the following quote from the June 18, 2010 Cornell arxiv email to me:

“Our moderators have considered your appeal and maintain that your submission is not appropriate as a new submission to arxiv. ...”

“Our moderators also suggest that you also have your 11 articles published in conventional journals before attempting to submit any new article to arXiv.”

Now what should I do with all of these rejections? Throw in the towel and quit as a lost cause? No, there are too many good scientists wasting precious man-hours searching for the mirage of dark energy, when they don't even know what energy is.

Fortunately I had heard about the Alternative Cosmology Group and even had a couple emails with Hilton Ratcliffe, so I decided to submit Paper 12 to vixra.org, which I did on 1/5/2011 [1]

Next week my third book will be coming off the binders, so I decided to send a second paper to the Alternate Cosmology Group describing its highlights of the new closed model [2]. This paper will be my third submission to vixra.org, hoping to get recruits to help reverse the costly acceleration paradigm.

VI Personal Contact with Originators of Accelerating Paradigm

The University of Michigan Physics Department had invited Saul Perlmutter (LBL) to give a colloquium talk November 11, 1998, with title: *Measurement of Cosmological Parameters from 42 High-redshift Supernovae; Is the Universe Really Accelerating?*

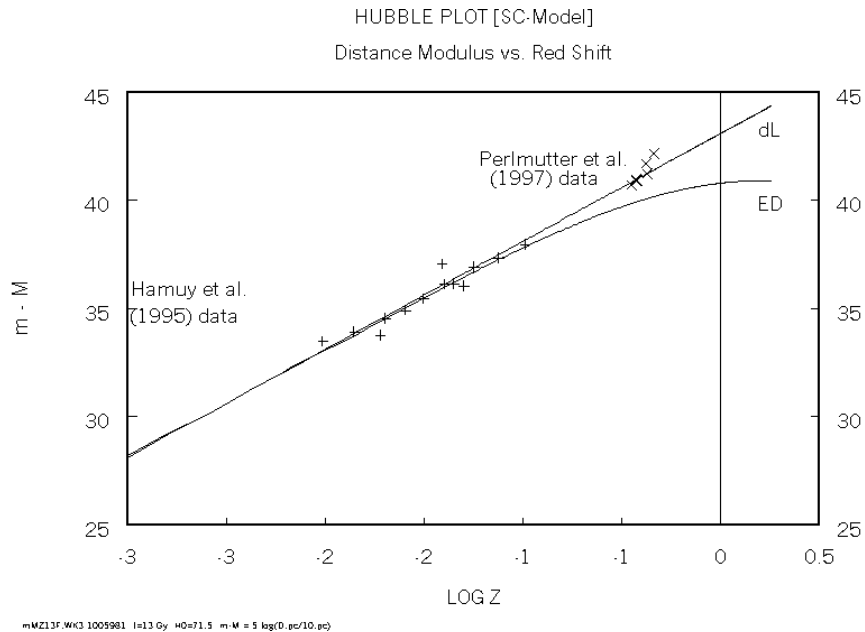


Fig. 2 Early 1998 SC-model fit to Perlmutter's first five high-z SNIa.

I arrived at West Hall early and went to Gus Evrard's new office. Gus was visiting with Saul and introduced me. I asked Saul if he had read my letter to him of October 9, 1998. He mentioned his stack of unanswered mail, so I showed him a copy

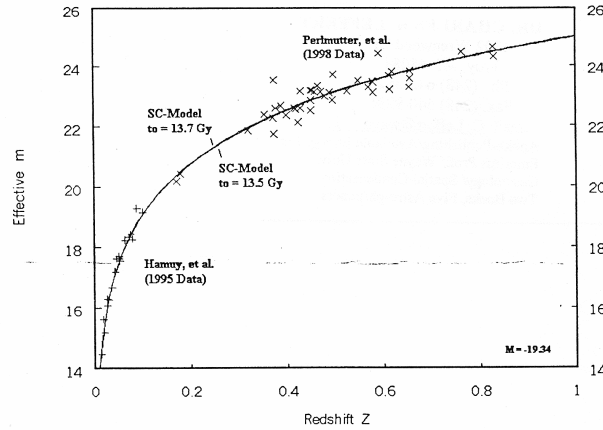
and pointed out that the figure (see Fig. 2) showed my model could fit his first five high-z SNIa with no lambda or dark energy. He expressed no interest, but promised to read the letter when he got back. No reply or interest was ever received.

The Michigan Center for Theoretical Physics hosted the 7th Great Lakes Cosmology Workshop May 15-18, 2003 and a lecture: *The Dark Side of the Universe* was given by Professor Michael Turner from the University of Chicago.

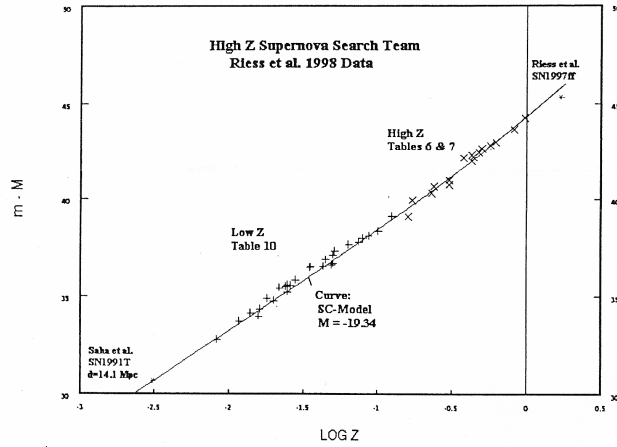
→ Mike Turner after talk 5/17/03 @ UCM

EXPANSION BY SPATIAL CONDENSATION ($\Lambda=0$)

Report 4
Fig 5
Fig 6



$\Omega_B = 0.031$ $t_0 = 13.5$ Gy $q = 0.0084$
 $\Omega_{DM} = 0.248$ $H_0 = 68.6$ km s⁻¹ Mpc⁻¹ $\dot{R}/C = 0.005$
 $\Omega_{mass} = 0.279$ $(\Omega_{DM}/\Omega_B)_0 = 8.05$ $R = 4388$ Mpc



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See Astro-ph/
0102071

Fig. 3 Image of 8 1/2 x 11 sheet given to Dr. Michael Turner at end of his 5/17/2003 talk, with my address and phone number typed on the back.

I pointed out that my new closed model, with the fixed parameters shown, fit the SNIa data of both teams without any lambda or dark energy. He flipped the sheet back upon the desk-lectern without questions or comment then or since.

The Wayne State University Department of Physics & Astronomy on April 27, 2005 sponsored a lecture by Dr. Robert Kirshner of Harvard University on *The Accelerating Universe, Einstein's Blunder Undone*. Dr. Kirshner was part of the High Z Supernova Search Team.

After his talk, I sat down next to him on the front row seats and showed him the 8 ½ x 11 sheet of Fig. 3 and I explained that my new closed model fit his data with no added lambda or dark energy. His only comment was that he thought they had collected more SNIa data than shown on my plot. He started talking to another person and I never heard from him since.

VII Conclusion

As a no-body in the cosmological community, I have yet made no dent whatsoever in the wall of the accelerating paradigm. My hope now is that my Book 3 will turn the tide, possibly with the help of the members of the Alternate Cosmology Group. I hope to be busy handling sales of Book 3 for awhile, so if members write about my new closed expansion theory, or my Book 3, please send me an email with the vixra number of your paper.

If the reader wonders how, at age 88, I could have kept up the quest for this long, with so many rejections, keep in mind the satisfaction of being the first to:

1. Discover the translation of Newton's equation for gravity in terms of a non-attractive source, of strength 10^{20} times the component we measure.
2. Recognize the fundamental character of Planck's natural units, and the suggestion of their dimensionless grouping: $G\rho_p t_p^2 = 1$.
3. Realize that for the expansion of the universe, the three options of Friedmann's Solution cannot be substituted for the concept of a single allowed solution.
4. Realize that nature could not possibly evolve with the possibility of collapse. Many new concepts arose from this limitation such as higher dimensional spaces, and epi-universe with our 3-D universe on the surface of a 4-D ball.
5. Realize that any new object in epi-space is a catalytic site for further production of 4-D spatial particles
6. Realize that the beginning production of free 4-D particles could lead to the formation of a 4-D ball with further production only on its bare 3-D surface.
7. Discover before development of the mathematical model, the SC-production rate of one new 4-D particle per per Planck second per exposed 4-D particle would predict a reasonable (correct) rate of new 3-D space of 350 Mpc³/yr.
8. Discover that the concept of cellular space leads to fundamental discrete time,
9. Realize dark matter that scales as R^{-3} should be replaced by dark mass that scales as R^{-2} with the expansion
10. Derive the Law of Expansion: $G\rho t^2 = 3/32\pi$, which allowed the present density of dark mass, ρ_{x0} , to be calculated by difference.

11. Discover after centuries of search by others, the SC-global expansion rate of the universe demands the arrow of time of past to now to the future.
12. Discover that a constant velocity on the surface of N-spheres leads to fundamental physical properties at redshift $z = 1.7$.
13. Derive the SC-luminosity distance, $d_L = (c(t_0 - t_{em}) + zED)(1+z)$.
14. Derive and integrate the photon delay effect, $dr/dt = v_c = Hr - c$
15. Enjoy the ability to move around freely in a closed model of our universe, first with different z from the present R_0 , or second, move first to different size of our universe, $F = R_0'/R_0$, and then move around at redshift z' from there, R_0' .

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