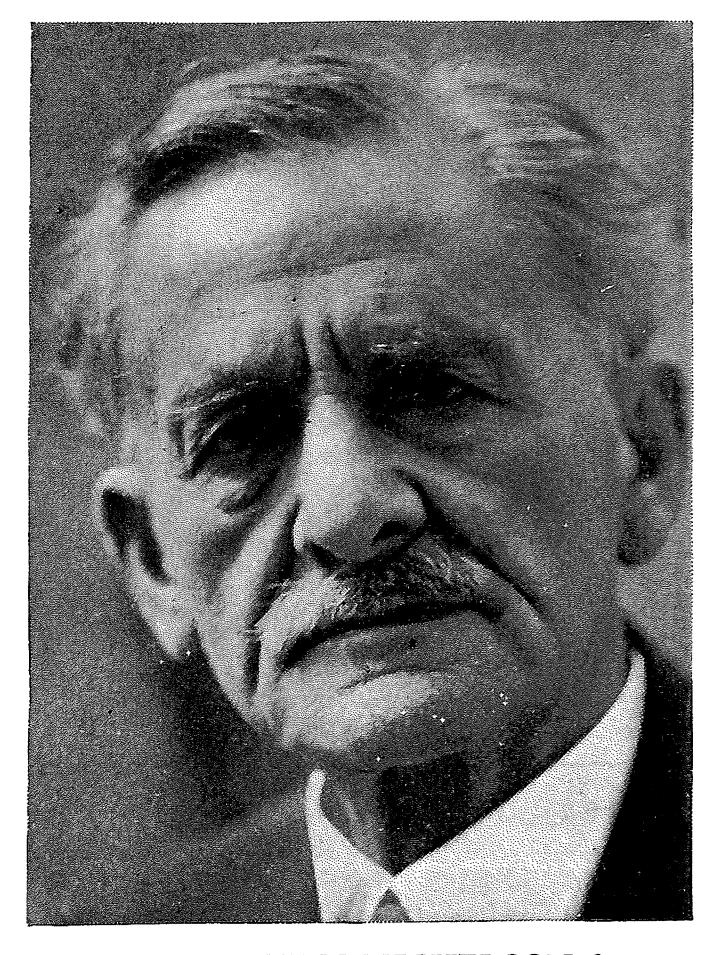
RELACITIES REVIEWED:

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ALBERT ABRAHAM MICHELSON demonstrated that the apparent speed of light remains unaffected by relative motion towards or from the light source, and opened the way for Einstein's theories.

Michelson, Albert Abraham

American physicist

b. Dec. 19, 1852, Strelno, Germany

d. May 9, 1931, Pasadena

Educated at the U.S. Naval Academy, Berlin, Heidelberg and Paris, Michelson became professor of physics at Chicago in 1892 after holding a similar post at Clark University (1889-92), and was awarded the Nobel prize for physics in 1907. He conducted notable experiments on the velocity of light, obtaining a result of 299,860,000 ± 30,000 metres per second, and with Morley he performed a famous experiment to determine ether drift, the negative result

of which led to the theory of relativity. He invented an interferometer which resolved into components many spectral lines previously thought to be homogeneous, both the sodium lines, for example, being doubled. The inventor of an echelon grating which is much easier to make than a line grating and gives enormous resolving power, he measured the wavelength of the red cadmium line to an accuracy of one in a million, and with it measured a metre for the Bureau International des Poids et Mesures, Paris. He showed that spectrum lines broaden at 300° C., and also succeeded in measuring tides in a closed pipe 500 feet long.

- (Some Notes on the Early Reasoning Brought Forward to Support the Theory of Relativity)
- (1) It was reasoned that light travelled through a special medium in space. This medium was called aether. (EE-thu. The EE of BEE, and the thu of thunder.)
- (2) The aether was FIXED in space. The aether did not move, but the Earth moved through the aether.
- (3) Vertically falling raindrops seem to be coming towards you, at an angle, when you are cycling. It was reasoned, that because the Earth moved through the aether (like bicycling through raindrops), starlight would come to us at an angle, and the star would not be positioned where we thought it was. This effect was shown to be true, and is called ABERRATION. This all seemed to prove the DOCTRINE of the FIXITY of the AETHER.
- (4) The scientists Michelson and Morley did an experiment to determine whether light speed at the surface of the Earth was affected by Earth's movement through the aether. They more or less directed light out from an apparatus, and reflected it back again, and timed it. They timed return light travel over a certain distance IN THE DIRECTION of Earth's motion through the aether. Then they timed return light travel over the same distance, but AT RIGHT ANGLES to the direction of Earth's travel through the aether. The result was NOT what was expected or hoped for. The travel times were THE SAME in each direction!!
- (5) Now, with careful thinking about this result, what should have been concluded at this point, was that the aether was a myth, and that measuring light speed on the Earth's surface was like measuring the speed of a ball thrown in the carriage of a moving train. You can equally well throw the ball at 60 miles per hour either along the carriage or across the carriage. Relative to the carriage, the speed is the same in each direction.

- (6) Note, too, that ABERRATION (see point 3) does not depend on <u>aether</u> to show the effect of stars being seen somewhat out of place. Aberration depends only on the movement of the Earth, and a Newtonian (ordinary) movement of light.
- (7) But the DOCTRINE OF THE FIXITY OF THE AETHER had taken hold! So what exactly <u>had</u> been expected of the Michelson Morley experiment?

I quote from a 1928 publication that reveals the thinking of the time. (Remember that "Relativity Theory" has been around for over 100 years)...

"Michelson's Experiment. Moving Aether .---

Now, if a boat is rowed at a constant rate relative to the surface of a stream, it can be easily shown that the time to row it first down and then up stream through a given distance relative to the banks is greater than the time taken to row it across the stream and then back through the same distance." (Chambers's Encyclopaedia)

Therefore, it was expected that light travelling <u>into</u> the "aether stream" over the Earth, and then <u>back again</u> over a certain distance, would take a <u>longer</u> travel time than light travelling <u>across</u> the "aether stream", and back again. Disappointment!

(8) Lorentz to the Rescue! Lorentz said that the obvious (?!) solution to the problem was that the speed of light was the same, both ways, when light was projected down, and then up, the "aether stream". In fact, said-Lorentz, the distance up and down the aether river, the distance, he said, HAD SHRUNK! so as to make the return light travel time along the "aether stream" the same as the return light travel time across the "aether stream".

And the shrinkage could never be measured, he said, because our rulers shrank too! And it did not matter how fast the Earth moved through the aether, because Relative to the Earth, the speed of light was always the same for us! Light speed was constant, and was totally INDEPENDENT OF OUR MOVEMENT AS OBSERVERS!

(9) The Lorentz Contraction (Shrinkage) Examined...
The 1928 publication quoted in item 7 above says
that return travel time up and down the river takes
longer than return travel time across the river and back.
Let us examine that. Take a river that is 2 miles wide,
moving at 1 mile per hour. Take a rowboat that moves
steadily at 4 miles per hour. Now, begin.

Row 2 miles down the river. You travel at 4 miles per hour, plus 1 mile per hour (the river speed). That's 5 miles per hour. That's a mile in 12 minutes, or 2 miles in 24 minutes. Now row up stream, at 4 minus 1 miles per hour, or 3 miles per hour. That's a mile in 20 minutes, or 2 miles in 40 minutes. Total time down, and then back up, is 64 minutes, or 1 hour and 4 minutes.

What about across the river? The 1928 publication, faithfully reporting the foundational assumptions of Relativity Theory, would hold that the 2 miles across the river, and 2 miles back, could be achieved in 1 hour by a row boat travelling at 4 miles per hour. So, just at a glance, the journey up and down the river takes 4 minutes longer than the return journey across the river. That is what Relativity requires, and what Lorentz Contraction requires.

(10) Unfortunately for Relativity, and unfortunately for Lorentz Contraction, the up and down river journey is only longer at <u>first</u> glance. Why? Because during 1 hour of rowing at right angles to the stream of the river, the rowboat is carried ONE MILE DOWN THE RIVER by the motion of the river! And it takes 20 minutes to row back up the river by one mile! So that the <u>crossways</u> journey takes 1 hour and twenty minutes! Sixteen whole minutes longer than the up and down journey! Oops! (Of course, in practice, you can row at an angle across the river to counter downstream drift. Same result though)

- (11) So it seems that the Lorentz "Contraction" for the up and down journey through the aether river should be a <u>lengthening</u> of distance, to make the up and down journey take a <u>longer</u> time, in order to match the <u>crossways</u> journey time. Rulers should be getting <u>longer</u>, not shorter! The Lorentz <u>Lengthening</u> should be the doctrine adopted!
- (12) Isn't it best just to dump the whole Relativity Theory? Michelson and Morley showed that light speed on the Earth is just the same as the speed of throwing a ball in a moving railway carriage. This is just ordinary, Newtonian, motion. (Called Ballistic motion there was an opposing Ballistic Theory of light travel in 1928. It was the right theory. Note that ABERRATION, discussed in point 3, means that light IS Ballistic in its travel nature)
- (13) Why is "Relativity" promoted? The answer is, that to maintain the Big Bang theory of origins, the universe must be expanding, with galaxies moving ever outward from an initial "Big Bang" explosion. Light from these fleeing galaxies must be able to come back to us at the speed of light, NO MATTER HOW FAST GALAXIES ARE SPEEDING AWAY!!

For the Big Bang theory to stand, Relativity is essential! Light speed must be "constant" and totally independent of Relative Motion! The <u>simple</u> idea of the <u>Newtonian</u>, <u>Ballistic</u>, <u>NORMAL</u> behaviour of light does not fit with the Big Bang Theory.

(14) Recently, it was proven <u>beyond doubt</u> that the universe is <u>not</u> expanding. <u>How</u> was this proven? Redshifts, measurements of starlight from galaxies, are supposed to mean "galaxies moving away". But 30 or 40 years of research by William (Bill) Tifft, of the University of Arizona, have shown that redshifts are QUANTIZED. If redshifts <u>were</u> about "speeding away", this would mean that galaxies could only "move away" in QUANTITIES of speed. Only in QUANTITIES of 72 km/sec (or certain special fractions of that speed - Ed.)

(15) Think. You don't see cars and trucks and buses moving away at only 10 or 20 or 30 etc miles per hour AND NO SPEEDS IN BETWEEN, do you? Poor passengers! So why should galaxies "speed away" at only 72 or 144 or 216 etc kilometres per second? Galaxies should be able to "speed away" at ANY speed!

Bill Tifft's findings have caused great puzzlement and embarrassment to "Big Bang" Science. Bill's QUANTIZED REDSHIFT work was derided. scoffed at. However...

(16) In 2011 it was <u>ABSOLUTELY PROVEN</u> that radioactive decay rate measurements display the <u>exact</u>, <u>same</u>, <u>identical</u> quantization as Bill's Quantized Redshifts. This means that redshifts are about <u>decay</u> (of starlight <u>generation</u>), <u>not</u> about galaxies moving away. The universe is not expanding. Light speed is slowing (decaying) by steps of 72 km/second. The Big Bang Theory is Dead. Relativity is <u>Finished</u>.

Editor's Note: Please read the paper "Relativity is Redundant", on the website www.lollo.org.nz This paper dispels the myths of relativity e.g. gravity slowing time and so on.

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	Lu 176		Rb 87		U 235 .		Th 232		Th 228		Ac 227	1	Ra 228)		Light		Nuclide
	8 x.00024 x 10 ***8		$6 \times .00024 \times 10^{1-8}$		$4 \times .00024 \times 10^{-6}$		2 x.00024 x 10 [/]	1	1½ x.00024 x 10 ³)	1% x.00024 x 10 ² .		½ x.00024 x 10 ⁻⁵	ن	$\% \times .00024 \times 10^{0}$,	Scientific Decay Rate
	8 x 24 = 192		$6 \times 24 = 144$		$4 \times 24 = 96$		$2 \times 24 = 48$	į	$1\% \times 24 = 36$		$1\% \times 24 = 32$		$\frac{1}{2} \times 24 = 12$		$\frac{1}{3} \times 24 = 8$		Simple Numbers
atoms, per year.	192 atoms decaying away, per ten million million	atoms, per year.	144 atoms decaying away, per ten million million	million atoms, per year.	96 atoms decaying away, per hundred thousand	atoms, per year.	48 atoms decaying away, per million million	per year.	36 atoms decaying away, per hundred atoms,	per year.	32 atoms decaying away, per thousand atoms,	per year.	12 atoms decaying away, per hundred atoms,	per hundred thousand wavelengths, per year.	8 wavelengths decaying away,		Decay Rates in Plain English

...and so on. Sample only. Notice the fractions and whole numbers of Bill Tifft's .00024 in the Scientific Decay Rate Quantization in radiodecay is identical with quantization in redshifts.

This means that redshifts are about decay of light, not about galaxies moving away. The universe is not expanding. The big bang theory is therefore debunked.