Recent Findings on Gravitational Lensing and the Shapiro Effect

Dr. Edward Henry Dowdye Jr.

Dear Professors:

I will be on travel to San Diego after 20 August till 25 August for a SPIE Optics + Photonics 2011 Conference in San Diego. I will challenge current theories and thinking having to do with the Einstein gravitational lensing concepts and topics on the so-called Shapiro Effect, erroneously thought to be related to and support the mainstream ideas on Relativity. My work is getting some positive attention and is also being included in an upcoming documentary movie on Einstein. The following web link shows a schedule of the upcoming presentations by the presenters, to include those of mine:

Session 2: Gravity, Relativity, and EM Waves

Date: **Monday 22 August**
Time: **10:30 AM - 10:50 AM**
Author(s): Edward H. Dowdye, Jr., Pure Classical Physics Research (United States)

Topic: Gauss's Law for gravity and observational evidence reveal no solar lensing in empty vacuum space

Time: **11:50 AM - 12:10 PM**
Author(s): Shahin Ghazanshahi, California State Univ., Fullerton (United States); Edward H. Dowdye, Jr., Pure Classical Physics Research (United States)

Shapiro Delay: a frequency dependent transit time effect; not a 4D space-time effect

Research, Schedule Details: http://spie.org/app/program/index.cfm?fuseaction=conferencedetail&export_id=x13102&ID=x12769&redir=x12769.xml&conference_id=949269&event_id=894266&programtrack_id=949237

Dear Fellow Researchers:

SIGNIFICANT FINDINGS
Gauss's law for gravity supported by nearly a century of intense observational evidence reveals that gravitational light bending in empty vacuum space does **not** take place.

Findings reveal:
1) Some very important Fundamentals in Mathematical Physics pertaining to Gravitational Lensing have been either ignored or seriously misapplied.
2) A a consequence of the failed attempts to detect **Macro Lensing** as predicted by General Relativity, Astrophysical observations on gravitational light bending and a host of other events have been seriously misinterpreted or labelled as **Micro Lensing**.

The Past Century of Research convincingly reveals:

- a clear lack of evidence for gravitational lensing in the vacuum space, just a fraction of a solar radius above the solar plasma rim; straightforwardly revealed by applying the Gauss' law of gravity to the solar mass
- a lack of evidence for Einstein rings in a sky of countless numbers of stars, where the candidates for gravitational lenses and the light sources are by good chance co-linearly aligned with the earth based observer
- a lack of evidence for gravitational lensing in the time resolved images of the stars orbiting about presumably a black hole at the site of Sagittarius A*

Predicted and Observed Solar Light Bending

Distance r above plasma in unit of solar radii R_{SUN} R_{SUN} = 696,000 km	Acceleration 0.33 g_{SUN} $1/r^2$ Effect	Acceleration m/s^2 $1/r^2$ Effect	Observed Lensing	Predicted by General Relativity 1/R Effect $R = R_{SUN} + r$
r = 1.0	0.25 g_{SUN}	68.5 m/s^2	0	0.88 arcsec
r = 0.5	0.44 g_{SUN}	121.8 m/s^2	0	1.17 arcsec
r = 0.2	0.69 g_{SUN}	190.3 m/s^2	0	1.45 arcsec
r = 0.1	0.83 g_{SUN}	226.4 m/s^2	small or none	1.59 arcsec
r = 0	1.00 g_{SUN}	274.0 m/s^2	1.75 arcsec	1.75 arcsec

The fact that the rays of star light are **not** lensed in the vacuum space just above the plasma rim, at distances of only a fraction of a solar radius R above the rim, is in itself a direct violation of the light bending rule of General Relativity.

Abstract
Findings show that the rays of star light are lensed primarily in the plasma rim of the sun and hardly in the vacuum space just slightly above the rim. The thin plasma atmosphere of the sun represents a clear example of an indirect interaction involving an interfering plasma medium between the gravitational field of the sun and the rays of light from the stars. Since the lower boundary of this vacuum space is only a fraction of a solar radius above the solar plasma rim, it is exposed to virtually the same gravitational field. The thin plasma atmosphere of the sun appears to represent an ***indirect interaction*** involving an interfering plasma medium between the gravitational field of the sun and the rays of star light. An application of Gauss' law clearly shows that, if the light bending rule of General Relativity were valid, then a light bending effect due to the gravitational field of the sun should be easily detectable with current technical mean in Astrophysics at analytical Gaussian spherical surfaces of several solar radii. More importantly, the very same light bending equation obtained by General

Relativity was derived from classical assumptions of a minimum energy path of a light ray in the plasma rim, exposed to the gravitational gradient field of the sun. The results is found to be totally independent of the frequency of the gravitationally bent light ray. An intense search of the star filled skies reveals a clear lack of lensing among the countless numbers of stars, where there are many candidates for gravitational lensing according to the assumptions of General Relativity. Assuming the validity of the light bending rule of General Relativity, the sky should be filled with images of Einstein rings. Moreover, events taking place at the center of our galaxy, a region known as Sagittarius A*, thought to contain a super massive black hole, should have revealed observational evidence for gravitational lensing. Nevertheless, a clear lack of evidence for gravitational lensing is revealed in the time resolved images of the rapidly moving stellar objects orbiting about Sagittarius A*.

Kurz auf Deutsch zusammengefaßt

Es wurden historisch immer nur die Gravitationslinsenereignisse in dünnen Schichten der Plasma-Atmosphäre der Sonne beobachtet, nicht im Vakuumraum einer Bruchteil des Sonnenradius über die Sonnenoberfläche. Alle Beobachtungen der bekannten Gravitationslinsenereignisse stehen im guten Einklang mit einer indirekten Wechselwirkung zwischen Gravitation und Elektromagnetismus. Die indirekten Wechselwirkungen werden aufgrund der Wirkung eines Interferenzmediums verstanden. Die direkten Wechselwirkungen werden in einem interferenzfreien Vakuumraum gedacht. Mit neuen astrophysikalischen Beobachtungsmöglichkeiten kann derzeit kein klarer Unterschied zwischen einer direkten Wechselwirkung und einer indirekten Wechselwirkung gemacht werden. Die dünnen Schichten der Plasma-Atmosphäre der Sonne stellen solch eine indirekte Wechselwirkung zwischen der Gravitation der Sonne und den Lichtstrahlen der Sterne dar. Es gibt überzeugende astrophysikalische Beweise, dass eine direkte Wechselwirkung zwischen Gravitation und elektromagnetischen Wellen noch nie beobachtet worden ist. Es wurden historisch immer nur die Gravitationslinsenereignisse in dünnen Schichten der Plasma-Atmosphäre der Sonne beobachtet, nicht im Vakuumraum weit über die Oberfläche der Sonne. Eine Anwendung des Gauß-Gesetzes der Gravitation zeigt deutlich, daß, wenn nur das Gravitationslichtablenkungsprinzip der Allgemeinen Relativitätstheorie gültig wäre, dann sollte das Gravitationslichtablenkungseffekt durch die Gravitationsfeld der Sonne mit modernen technischen Mittel der Astrophysik an analytischen Gauß-Sphären mehrerer Sonnenradien leicht detektierbar. Dasselbe Gravitationslichtablenkungsgleichung der Allgemeinen Relativitätstheorie wurde mit der Anwendung einer rein klassischen Annahme von einer minimalen Energie-Weg eines Lichtstrahls im Plasmaatmosphäre der Sonne unter Einfluss des Gradientfeldes der Sonne abgeleitet. Überraschend wurde diese Ergebnis Frequenzuebhängig gefunden.

Un breve resumen

Las pruebas de observaciónes recientes indican que los fundamentos importantes de la física matemática y las observaciones astrofísicas han sido aplicadas incorrectamente a los llamados lentes gravitacionales. Desde su descubrimiento, los investigadores asumieron que los lentes gravitacionales son debido a una interacción directa entre la luz y la gravedad. Históricamente, los astrónomos han observado que los rayos de luz de las estrellas que pasan cerca del borde del sol se desvían siempre de sus trayectorias lineares. Evidencias nuevas demuestran que todas las observaciones astronómicas sobre los effectos de los lentes gravitacionales de los rayos de luz han sido debido a una interacción indirecta entre la luz y la gravedad y no debido a una interacción directa. El borde fino del plasma del sol representa una interacción indirecta entre el campo gravitacional del sol y los rayos de la luz de las estrellas. La evidencia astrofísica convincentemente demuestra que se observa solo una interacción indirecta entre la luz y la gravedad. Esta desviación en la dirección de propagación de la luz se explica por medio de una interacción electrostática con el borde fino del plasma del sol. El plasma mismo tiene un gradiente espacial característico debido al gradiente del campo gravitacional del sol. Aparentemente, una interacción directa entre el campo gravitacional del sol y los rayos de luz en el espacio vacio cerca

del sol no ocure. La astrofisica moderna nos permite muy fácilmente detectar en el espacio vacío a largas distancias de múltiples radios solares encima del borde fino del plasma solar los efectos de un lente gravitacional según la teoría de relatividad general . En las superficies de las esferas Gaussianas de radios 2R, 3R, 4R y 5R, respectivamente, un efecto de por lo menos la mitad, una tercera, una cuarta o una quinta parte del efecto observado en el plasma solar debería ser observable. En realidad, las nuevas evidencias muestran que en el espacio a poca distancia encima de la superficie del sol el lente gravitacional no tiene lugar. La ley de la superficie de la esfera Gaussiana se aplica directamente a la masa M del sol que está encerrado por las esferas Gaussianas de radios 2R, 3R, 4R y 5R. El efecto gravitacional de un rayo de luz en uno de los parámetros de impacto 2R, 3R, 4R y 5R depende teóricamente solo en la cantidad de masa M del sol que está encerrada por la correspondiente esfera analitíca Gaussiana y cambia según el factor 1/2, 1/3, 1/4 y 1/5 respectivamente. Aparentemente, las observaciones astrofísicas nuevas no son consistentes con los llamados lentes gravitacionales según la teoría de la relatividad general de Einstein. En esta región del espacio vacio por encima de la superficie del sol donde no hay plasma, no existe ninguna distorsión en la forma del lente gravitacional.

Moreover, findings clearly show that the ***Shapiro Delay*** is essentially a frequency dependent transit time effect, which clearly explains the propagation delays for electromagnetic waves in the microwave spectrum, due to the electron density profile of the solar winds. The ***Shapiro Delay*** has absolutely nothing at all to do with the Space-Time predictions of General Relativity which is in itself totally independent of the frequency of the electromagnetic emissions. It is a clear fact that waves in the microwave frequencies and wavelengths are at resonance with the plasma atmospheres and the electron densities of the solar winds. The ***Shapiro effect*** has virtually no detectable effects at all on the ***optical***, ***infrared*** or the ***ultraviolet*** waves which are all in the nm wavelength region of the spectrum.

Keywords: black hole, gravitational lensing, galactic core, Gauss law, optical reciprocity.

Details: http://www.extinctionshift.com/SignificantFindings.htm

The Paper 8121-6, will be presented at the SPIE Optics + Photonics 2011 Conference in San Diego
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Comentarios en español son bienvenidos siempre.
Kommentare auf Deutsch sind auch willkommen.

Edward H. Dowdye, Jr., Ph.D. Physics
Founder, Pure Classical Physics Research
Greenbelt, Maryland 20770
e-mail: gravity@extinctionshift.com