The O‘Connell effect in eclipsing binaries explained by mass related light speed extinction distances (LASOF) of stars and even planets.

Leo Vuyk  
Architect  
The Netherlands.

Abstract.  
If the orbits of close binary stars are circular, and the light speed is NOT influenced by the speed of the stars, we have to expect that the light curves are symmetrical between moments of eclipse or even conjunction.  
However, This is mostly not the case and still an ongoing debate in astronomy and called the “O ‘Connell effect”.  
According to Quantum FFF Theory, however I assume that the local light speed around the stars is gravity related for a mass related distance from the source (star) called LASOF ellipsoid, (Local Asymmetrical Oscillating vacuum Frame)  
As a result the so called O ‘Connell effect can easily be explained as a logic result of additional redshift or blueshift by the local lightspeed variation.  
At the same time also planets should show such lightspeed extinction effects, which is already measured but not understood by I.I.Shapiro (see “radar astronomy” edition by Evans and Hagfors, 1964).  
As a consequence, Einstein’s Special relativity rules do not hold.

Introduction.  
If we look at the apparent magnitude of eclipsing binary stars we can discriminate two equally spaced peak magnitudes at point 0.0, 0.5 and 1.0 (fig 1).  
This is always explained by the fact that the smaller star is mostly hotter ( brighter) and the result is that if the smaller star eclipses (behind the larger star) the minimum peak is larger than the following peak, which is called the Primary eclipse.  
The secondary eclipse and minimal magnitude peak is of course related to the opposite eclipse situation, that the larger star is eclipsing behind the smaller star.

The O‘Connell effect is related to this difference in the apparent magnitudes in between the two minimal peaks, which makes the figure asymmetric. See Figure:1.

Figure 1 Two typical examples of apparent Magnitude curves of eclipsing binaries with asymmetric maxima and symmetric minima.
LASOF Lightspeed (c+/−v) extinction ellipsoid around massive objects as the origin of the anomalous Quasi Periodic Oscillations and the a-symmetric light curves called the O’Connell effect. According to Quantum FFF Theory.

Due to the LASOF effect it seems that the approaching star to the observer is accelerating before conjunction and decelerating after conjunction. Just as seems to be the case in figure 3 (Venus).

Eclipsing Binary Stars are observed to be alternating red- or blueshifted with a wobbling redshift if passing in front of the other and called “QUASI PERIODIC OSCILLATIONS” (\(\downarrow\)). Just like the passing of the SUN by VENUS (see I.I. Shapiro).

Figure 2, Quasi periodic oscillations in calculated velocities of both binary stars in HV 2543. Due to the LASOF effect it seems that the approaching star to the observer is accelerating before conjunction and decelerating after conjunction. Just as seems to be the case in figure 3 (Venus). The apparent magnitude difference is originated by the LASOF effect of the star in motion related to the observer also visible in the radial velocity curves of near binary stars and planets (Venus).
Figure 3 Quasi periodic oscillations measured by I.I. Shapiro for the time delay of the conjunction of Venus, earth and sun.
Figure 4, the effect of overlapping LASOFs of earth and venus.
Gravity direction dependent Lightspeed Frame Dragging by the LASOF asymmetric Vacuum.

Figure 5, the LASOF principle depicted.
Lightspeed variability between massive objects like Venus and the Earth by the LASOF Vacuum.
A clear example of GPS failure for sat-sat signals at higher altitudes (CHAMP: 430 km, GPS: 20.000km). Kinematic orbit solution comparison showing GPS data outliers up to 180 meters, (2x) during a CHAMP flight long 24 hours with 15 earth revolutions in 2003.

Figure 5.3 Comparison of the absolute kinematic orbit solution, w.r.t. RSO.

Estimation of the LASOF ellipsoid minor axis based on maximum outliers (180m) found in Champ satellite GPS distance measurements. According to Quantum FFF theory.

Calculation of the MINOR AXIS (11821 km) of the LASOF ellipsoid based on CHAMP max outliers of 180 m. measured in 2003. author: Leo Vuyk.

By linear interpolation we may calculate as follows: 327/180=X/3000.
Conclusion: the minor axis of the LASOF ellipsoid is ending 5450 km outside the Earth's surface. The LASOF radius is 5450+6371=11821 km!!

The most LASOF influenced GPS Signal are skimming the Earth, at 327 km altitude. According to max outliers of 180 meter we can estimate the minor axis of the LASOF ellipsoid around the Earth: LASOF is Local A-Symmetrical Oscillating vacuum Frame.

Section through the Earth, with a radius of 6371 km.

Figure 7 Additional LASOF effects.
Two experiments to show mass related light-speed differences (Quantum FFF theory)
Mass related lightspeed differences by LASOF (Local A-Symmetric Oscillating Vacuum Frame) effects are origin of Gravity direction dependant lightspeed Frame dragging. (Quantum FFF theory)

![Diagram](image)

Figure 9, Some early indications of a LASOF effect.
References:

[47] The New God Particle and Free Will. 
Author: Leo Vuyk, LuLu publishers, 2008. 
ISBN number 978-1-4092-1031-3
http://www.lulu.com/spotlight/LeoVuyk

[46] Quantum FFF Theory is also published in the form of POSTERS at the Flickr site: 
http://www.flickr.com/photos/93308747@N05/

[45] Numbered listing of Vixra essays by Leo Vuyk (see below). 
http://vixra.org/author/leo_vuyk

[44] viXra:1401.0115
Calabi Yau Shaped Double Fermion Spin States.

[43] viXra:1401.0071
Democratic Free Will in the Instant Entangled Multiverse.

[42] viXra:1312.0143
The Navel Cord Multiverse with Raspberry Shape.

[41] viXra:1312.0107
Are Sunspots Made of Gravitating Dark Matter Black Holes?

[40] viXra:1310.0101
The New Nuclear Magic Number (34) Explained by the Polar Coaxial Ring System of Category: Nuclear and Atomic Physics

[39] viXra:1310.0059
The Semi Relativistic Higgs Field Aether with Mass Related Lightspeed Adaptation.

[38] viXra:1309.0081
New Physics by Table Top Experiments.

[37] viXra:1308.0083
The Raspberry Shaped Super Symmetric Multiverse

[36] viXra:1307.0068
Quantum Function Follows Form Theory, the Small Scale, Posters part 1.

[35] viXra:1307.0067
Quantum Function Follows Form Theory, the Large Scale, Posters part 2.

[34] viXra:1306.0218
Dark Matter UFO Dust Particles or Quantum Knots in the LHC at CERN?

[33] viXra:1306.0065
The Splitting Dark Matter- Black Hole- Big Bang and the Cyclic Multiverse.

[32] viXra:1305.0140
Quantum FFF Theory Experiments, a Summary.

[31] viXra:1305.0041
The Shnoll Effect Explained by Quantum FFF Theory.

[30] viXra:1304.0022
The Self Organizing Universe in the Carina Nebula.

[29] viXra:1303.0211
Hubble Redshift Combined with Universal Contraction is Possible.

[28] viXra:1303.0053
Micro Birkeland Currents Between Two RF Generated Plasma Balls in the Laboratory.
27, viXra:1302.0172
Silicon Based Ball Lightning Globule Structures and Signs for Accumulation and Retarded Decrease of Tunnelling Energy Bullets.
26, viXra:1301.0088
Two or Three Large Quasar Groups (LQGs) Located at the Start of Two or Three Lyman Alpha Systems and a Part of the Raspberry Multiverse?
25, viXra:1301.0050
Dwarf Galaxies and Their Relation with Dark Matter Based Galaxy Anchor Black Holes (Gabhs).
24, viXra:1210.0177
Instant Broglie Bohm Pilot Waves, the Origin of All Entanglement Effects in the Lab and Wavefunction Collapses in Our Universe as Related to Our Opposing Anti-Copy Universe(s) According to Quantum FFF Theory.
23, viXra:1209.0092
New Dark Matter Black Holes and a New Dark Energy Higgs Field, Lead to a Bouncing CP Symmetrical Multiverse, and New Experiments.
22, viXra:1209.0061
Birkeland Currents, Sunspots, Comets and Ball Lightning Originated by New Paradigm Dark Matter Black Holes.
21, viXra:1209.0030
Majorana and Sterile Neutrino Solutions in the Quantum-FFF Model.
20, viXra:1208.0031
Clumpy Dark Matter Around Dwarf Galaxies a Support for an Alternative Black Hole Theory According to the Quantum Function Follows Form Model.
19, viXra:1202.0091
Earth Magnetic Monopole Array Field Interaction with Cyclotron–Synchrotron Electrons and Muon Conversion Used for Levitation Systems.
18, viXra:1201.0092
Earth Magnetic Monopole Array Field Interaction with Cyclotron Electrons used for Levitation Systems.
17, viXra:1112.0065
LHC Signals Between 121-130 Gev Interpreted with Quantum-FFF Theory
16, viXra:1111.0096
Reconciliation of QM and GR and the Need for a Pulsating Entangled CPT Symmetric Raspberry Shaped Multiverse.
15, viXra:1111.0061
Black Hole Horizon Curvature Dependent Balance Between Plasma Creation and e-e+ Annihilation in Quantum FFF Theory.
14, viXra:1108.0036
Artificial Ball Lightning Production and Exploitation Device for Zero Point Electric Energy Usage.
13, viXra:1108.0006
Mass in Motion in Quantum FFF Theory
12, viXra:1104.0083
Quantum FFF Theory in Posters.
11, viXra:1104.0044
Ball Lightning, Micro Comets, Sprite-Fireballs and X-Ray/gamma Flashes According to Quantum FFF Theory.
10, viXra:1104.0002
Stellar Anchor Black Holes as the Remnants of Former Herbig Haro Objects
9, viXra:1103.0097
ZPE Zero Point Energy Examples Around Black Holes.
8, viXra:1103.0068
Funktion Follows Form, at the Quantum Scale and Beyond.
7, viXra:1103.0024
Quantum Gravity and Electro Magnetic Forces in FFF Theory
6, viXra:1103.0015
Wavefunction Collapse and Human Choice-Making Inside an Entangled Mirror Symmetrical Multiverse.
5, viXra:1103.0011
An Alternative Black Hole, Provided with Entropy Decrease and Plasma Creation
4, viXra:1103.0002
3-Dimensional String Based Alternative Particles Model
3, viXra:1102.0056
Experiments to Determine the Mass Related Lightspeed Extinction Volume
2, viXra:1102.0054
Atomic Nuclear Geometry Based on Magic Number Logic.
1, viXra:1102.0052
Construction Principles for Chiral ‘‘atoms of Spacetime Geometry

--------------------------------------------------