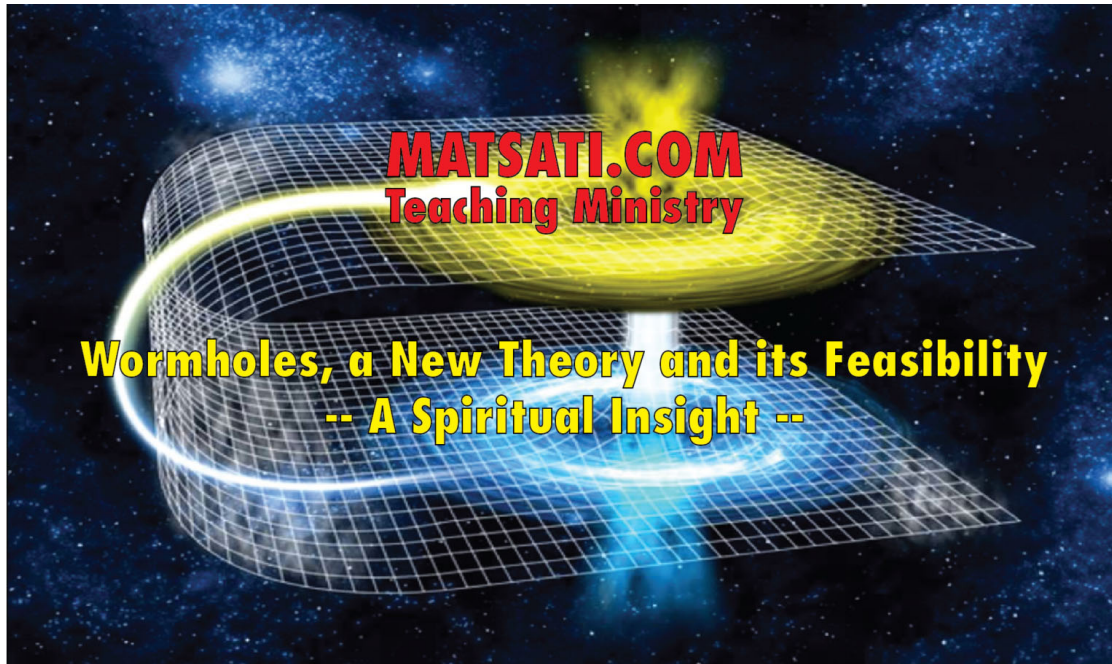


Wormholes, a New Theory and its Feasibility – A Spiritual Insight

By **MATSATI** - April 10, 2021



Researchers have recently theoretically constructed a class of transversable wormholes in Einstein-Dirac-Maxwell theory in four spacetime dimensions, without the need for exotic matter. [1] The idea of exotic matter as it is related to space travel, is the way in which some have theorized a realization of deep space travel. Such things as warp drive, etc one needs to have exotic matter of some sort with negative energy to create the warp field, or some kind of exotic matter needed to power the drive system. Issues with this approach, there is the possibility of massive amounts of radiation exposure to the passengers, etc. This recent paper however develops a theoretical model which does not have the need for exotic matter, and demonstrates a finite mass and electric charge are all that is needed (*i.e. not a singularity like a blackhole as previously theorized*) and also proposes a wormhole solution with ungauged, massless fermions.

References

1. Jose Luis Blázquez-Salcedo et al, **Traversable Wormholes in Einstein-Dirac-Maxwell Theory**, *Physical Review Letters* (2021). DOI: 10.1103/PhysRevLett.126.101102
<https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.126.101102>

Wormholes have found their place in science fiction for many years, which is often depicted as a shortcut between two distant points in space. In the reality of modern physics, these spacetime tunnels are purely hypothetical. In the recent research paper, scientists from the University of Oldenburg have presented a new theoretical model in the Physical Review letters Journal. In Einstein's general theory of relativity, he proposed the universe has four dimensions, three spatial (x, y, z) and one time (t). This forms what Einstein called "Spacetime" which is able to be stretched and curved by massive objects such as black holes or stars, etc. Spacetime curvature is what needs to be taken into consideration when

viewing galaxies and stars at distant places in the universe in order to get their correct locations. In theory, spacetime could also be bent and curved without massive objects as the recent paper suggests is mathematically possible. In the previous models, the idea was that if a wormhole was created and a spacecraft were to fly into it, the wormhole would instantly collapse into a black hole. In order to prevent this from happening it was necessary for the use of an exotic form of matter that has a negative mass to transverse the wormhole. This new model however demonstrates that wormholes could be traversed without the need for exotic matter. The researchers combined elements of the theory of relativity, quantum theory, and classical electrodynamics theory in their model. The theoretical wormhole is small, on the size scale of an electron (elementary particles). In their approach, the Dirac matter was described by a quantum wave function rather than by a quantum field. They claim this is more of a tractable model which includes the backreaction of the matter to spacetime geometry being taken into account. The Dirac equation describes the probability density function of a particle according to quantum theory and relativity known as the Dirac field. It is because of this new way of describing the Dirac equation that permits the existence of a wormhole that is transversable by matter. The caveat is the ratio between electric charge and mass of the wormhole must exceed a certain limit. The inclusion of the electric charge allows for "smooth" geometries without the presence of a thin shell of extra matter at the throat of the wormhole. Previously the theoretical wormhole models with classical bosonic fields required some exotic matter and/or nonstandard Lagrangians. These results suggest that this situation changes for a fermionic matter content. These wormholes that are theorized by researchers would not be suitable for interstellar travel as they are very small, at the quantum level. This is however a very interesting topic and extends our understanding theoretically of wormholes and their traversability..

The Spiritual Insights that we receive from this type of research is related to Einstein's theory of relativity, the spacetime curvature depending upon the mass and corresponding gravitational field, and the formation of wormholes which allow one to travel vast distances in a short period of time. What does this remind us of in the Scriptures? The specific situation in the Scriptures that we are reminded of is from John 20:19.

ספר לוקס פרק יט

לַעֲתָ עָרֵב, בָּאוּתוֹ יוֹם רִאשׁוֹן בַּשָּׁבוּעַ, כַּאֲשֶׁר דָּלְתוֹת הַמָּקוֹם שֶׁנֶּאֱסָפוּ בּוֹ הַתְּלָמִידִים
הָיוּ סְגוּרוֹת מִפְּחַד רָאשֵׁי הַיְּהוּדִים, בָּא יֵשׁוּעַ וְעָמַד בֵּינֵיהֶם. אָמַר לָהֶם: "שָׁלוֹם
לָכֶם."

JOHN 20:19

NOW WHEN IT WAS EVENING ON THAT DAY, THE FIRST DAY OF
THE WEEK, AND WHEN THE DOORS WERE SHUT WHERE THE
DISCIPLES WERE TOGETHER DUE TO FEAR OF THE JEWS, JESUS
CAME AND STOOD IN THEIR MIDST AND SAID TO THEM, "PEACE
BE TO YOU." (NASAB)

Now we are told here according to John 20:19 following the resurrection of Yeshua, is that the disciples were shut up in a room, locked door, because of their fear over what had

happened recently. The text states that they were in a locked room and *"Yeshua came and stood in their midst."* Now notice how this sounds like Yeshua had the capability to appear instantaneously in spacetime wherever he chooses. In this situation he came and said שלום לכם (Shalom Lachem, *"Peace to you"*) to give the disciples peace of mind over what had happened. This concept of traveling vast distances and being able to appear anywhere in spacetime, coupled to what we are told according to [John 20:19](#), we can understand that God is able to do anything and all things, just as we see here Yeshua appearing instantaneously among the disciples in a close and shut up room. This appearing is a minor thing compared to what the God of Israel is able to do! Paul wrote that God is *"able to do far more abundantly than all that we ask or think, according to the power at work within us."* ([Ephesians 3:20](#)) Notice how God and His power is at work within us! This is a powerful statement. This is the power of God that created the world in chesed (חֶסֶד יְבִנָּה), this same grace (chesed, חֶסֶד) which enables and gives wisdom to the heart to build up the sanctuary of God, i.e. *"Love builds up."* Being *"wise of heart"* (חָכָם-לֵב) means having emotional maturity, humility, and rightly ordered affections to live our lives for the Lord, and to declare the glory of God no matter what situation comes our way. Such heart wisdom does not depend on how smart one is or what sort of education one might have, but rather whether we are able to believe in and comprehend this power of God by His presence in our lives! When we think about God's ability to do something, He is able to do what? Is there anything outside of the Lord's power to accomplish? Even our imagination cannot conceive the extent of God's power and abilities. [Hebrews 7:25](#) states the Lord can *"save to the uttermost those who draw near to God through him"* (through the Messiah) Notice how this ability to save is dependent upon whether we draw near to Him. [Jude 1:24](#) states that the Lord is able *"to keep you from stumbling and to present you blameless before the presence of his glory with great joy."* The kind of power that God has is to heal the sick and raise the dead and to transform souls. ([2 Corinthians 5:17](#)) The Lord is able to transform the heart for example transforming an angry person to a peaceful one, sad people to be content, and despairing individuals into his own hopeful children who are confident to preach the gospel. The Torah tells us according to [Devarim / Deuteronomy 18:13](#) the following:

ספר דברים פרק יח

יג תמים תהיה עם יהוה אלהיך

DEVARIM / DEUTERONOMY 18:13

YOU MUST BE WHOLEHEARTED BEFORE THE LORD YOUR GOD.

The word תמים means *"complete, whole, sound, blameless"* and so this verse is saying that we are made whole with God. Note how this word is most often translated as blameless in many bible versions. God said to Abraham according to [Bereshit / Genesis 17:1](#), וְאַתָּה יְהוָה אֱלֹהֶיךָ: *"I am God Almighty; walk before me and be תמים"* (tamim, blameless). This does not connote that one is to be perfect or make no mistakes but to be fully engaged in our efforts to walk in God's Ways, and to seek His help believing that He loves us! Yeshua made a similar statement according to [Matthew 5:48](#) saying, *"be therefore perfect as your Father who is in heaven is perfect."* We note here the word used is שְׁלֵמִים meaning *"be complete, sound"* meaning that we are complete, made whole, in the Lord God and His messiah Yeshua. Part of God working in our lives in a powerful way, such as all of the examples that we read in

the Scriptures, is dependent upon whether we are willing to wholeheartedly live our lives for Him, draw near to Him, etc.

It is unfortunate that many Christians have adopted a secular human worldview and are living their lives in a way that parallels the way of the world. Examples of this are those who embrace the doctrine of demons such as "critical theory" and the "woke" gospel instead of the Gospel that is given us according to the Scriptures. What happens when one accepts these things, they worship idols instead of worshiping God, idols such as those in the form of celebrities, sports, and politicians. This also leads to valuing "material stuffs" over the fruits of the Spirit and the working of the power of God in our lives. One seeks comfort and fleeting pleasure over suffering and courage, two things that are absolutely a part of the unapologetic and authentic life of faith. The time for a lukewarm faith is over. We who are saved are able to see what is coming in this world based upon the Scriptures, and so we need to raise up and proclaim the name of Yeshua the Messiah as King of Kings and Lord of Lords. We have to be deterministic in our establishing the nuclear family, and raising our children to know and love the Lord. Men and women of faith are the ones who have been the builders and the pioneers in this world throughout history. This demonic ideology of "critical theory" is filled with selfish desires, individualism, lust, greed, ungodliness, and lies about people of different races. Through television and movies, the news papers, and elsewhere, the enemy is conditioning you to be lukewarm in your approach to the Scriptures and your relationship with God. If our children are not raised to have a biblical worldview, the Enemy will most certainly see to it that they are raised to accept their demonic secular humanism world view. We have to also live out our faith before our children so they will know what it is like to live a godly life in this world. We are called out from the nations, we serve the Creator of the Universe, and so this is a call to sever the connections that we have to this world and walk in God's ways of holiness, justice, and truth! This is the basic founding principle in the Torah, coupled to repentance and seeking God and His anointed one, and this is also the basic principle taught by Yeshua the Messiah! The world is a very alluring thing, and just as we see here in the scientific research on wormholes, and Yeshua having the ability to just appear instantaneously anywhere, this speaks to the power of God, which Paul says is inside of each and every one of us. The Lord God Almighty has the power to overcome and help us to come out of the world and walk in His ways.

So this concept of תמים תהיה עם יהוה אלהיך being whole hearted before the Lord is a mandate and a command for our lives! We are called to know what is truly good and to be able to distinguish between good and evil, and to choose the good and not the evil. We are made whole, perfect, and complete in the Messiah. King David said the Torah of the Lord is perfect (תמים) as for returning the soul to God (Tehillim / Psalms 19:8). So when we read in Devarim / Deuteronomy 18:13, תמים תהיה עם יהוה אלהיך "you shall be tamim (wholehearted) with the Lord your God," this becomes a prophetic message of transformation of our lives before God! This is the power of God in our lives, how our relationship with God in and through the Messiah is tamim (blameless) in the sense of being wholehearted, resolute, and entirely committed to walking with Him in this world. This is why Tehillim / Psalms 119 begins saying, אשגל תמידי דרך כהלים בתורת יהוה: "blessed are the 'wholehearted' (tamim) in the way who walk in the Torah (instruction) of the Lord." Walking in the Torah of God means walking humbly before the Lord. The study and practice of the Scriptures makes us wholehearted, resolute, and committed to God and His ways! The

Scientific research draws out these truths of the power of God in our lives to overcome this world. Praise the Lord for the wonderful mercies that He shows us each day, and for his power to help us overcome the world!



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Dr. Duane D. Miller received his Ph.D., M.S., and B.S. Degree in Chemical Engineering from The University of Akron Ohio. He is currently a Chemical Engineering Researcher. Duane's research expertise has focused upon functional materials development for the control, conversion, and release of process gases in Energy production technologies. His R&D interests include computational chemistry, developing novel technologies for converting biomass to fuels and studying their fundamental interactions during the chemical conversion process. His past experience includes sorbent development for pre- and post-combustion CO₂ and SO₂ capture, selective absorption of H₂S from methane streams, O₂ capture for oxy-fuel combustion, photocatalytic reduction of alcohols, NO_x reduction catalysis, the development of oxygen carriers to combust fossil fuels (CH₄ and coal) for the chemical looping combustion processes, and the extraction of rare earth elements using patent pending sorbents. His research expertise has focused on operando-characterization using Infrared, Raman, and UV-Vis spectroscopy to observe the nature of the catalytic active sites and reaction intermediates under realistic reaction conditions, allowing direct correlation of molecular/electronic structures with catalyst performance during Gas-Solid / Liquid-Solid Adsorption and Photocatalytic Processes with real time online analysis of reaction products using ICP-MS and mass spectrometry. His current work involves a multi-disciplinary approach to developing, understanding, and improving the catalytic gasification of coal and methane, high temperature chemical looping combustion, and the catalytic decomposition and gasification of biomass and coal using novel microwave reactor. He has been studying the Hebrew Scriptures and the Torah for 20+ years and sharing what he has learned. The studies developed for MATSATI.COM are freely to be used by everyone, to God be the Glory!

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Parashat Tzav
פרשת צו

Vayikra / Leviticus 6:1-8:36, 1 Samuel 15:1-34,
 Mark 7:31-8:38

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**We Really Travel to the Moon
 as NASA Assembles Twin Boosters
 for its Mega-rocket
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this type of research is related to the something
ing the ears. The specific phrase that Yeshua
"He that hath ears to hear, let him hear." This
Yeshua at the close of a parable or speaking
to Mark 4:9, and Mark 4:23, Luke 14:35 comp.
is phrase is used frequently and it means that we
in God's commands, to be able to reason and
and His Word. The ears are one of the most
to us by the greatest command in the Torah. Our
according to the Torah, as helping us to know
is the purpose of our lives and how we can fulfill
se questions by speaking of the greatest
is.

ספר דברים

ד שמע ישראל יהוה אלהינו יהוה אחד.
ובכל-נפשך ובכל-מאדך וקהל-הקדרים הא
ושונתם לבניך ודברת בם בשבתך בביתך
וקשרתם לאות על-ידך וקוי לטטפת בין ע
ובשעריך. ויהי כי-יבאך יהוה אל
לאברהם ליצחק וליעקב לתת לך ער

UTERONOMY 6:4-10

IS OUR GOD, THE LORD IS ONE! 6:5
YOUR GOD WITH ALL YOUR HEART
AND WITH ALL YOUR MIGHT. 6:6
COMMANDING YOU TODAY, SHALL
SHALL TEACH THEM DILIGENTLY TO

