"THE IMPLICATIONS WILL ENTIRELY CHANGE HOW WE THINK ABOUT SPACE AND SPACE TRAVEL WITHIN ONE GENERATION" - EAN MIKALE 1 D.

THE NAHIR'S NOSE

SPACE

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July 4, 2020

A DIVISION OF INFINITE 8 INSTITUTE, L3C

NAHIRS NOSE THEORY: THE PROBABILITY OF LOCAL SOLAR OR LOW-SPECTRUM HEAVENLY BODIES WITHIN 1-4 LIGHTS YEARS OF THE SUN

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ABSTRACT

For some unexplained reason, there has been a long-standing belief among the scientific and astronomical community surrounding the more immediate interstellar space surrounding our star, as more or less empty of any significant heavenly solar bodies. Our research looks to dispel this unfounded premise, with popular and widely accepted existing scientific evidence. Upon proving the high likelihood of local heavenly bodies existing, undiscovered, within a distance of 1-4 light years, the reality of space travel to other star systems seems far from fallacy, but rather a concrete reality. With this new revelation, it is feasible for all of mankind to regularly travel to the stars within a generation. The focus of Infinite Space, in the area of rapid research and development, shall be to explore this inner space, and equip transport and human-based systems with Artificial Intelligence capable of protecting mankind from the wilderness and dangers of space.

1. Introduction

It takes our Sun a phenomenal 250 years to circle the Milky Way. Looking from Earth, it would seem that the Sun is static, and does not do anything but possibly spin on its axis. This could not be more further from the truth. While we are speeding through the galaxy, our Sun is moving towards the Constellation Vega. The popular misconception is that our Sun is not gravitationally bound to any other solar body. However, the majority of stars across the Universe, and to assume the Multi-verse is no exception, are accompanied by companion stars. In the universe 1/3rd to ½ of all stars are thought to be a part of a multiple star system. The existence of unseen neighbors could also be observed through mass transfer between orbiting or gravitationally locked solar bodies.



Another relatively unknown factor, deals with sub-stellar, or L/T/Y class Brown Dwarfs, which are stars which are so cool, that they do not emit light in the visible spectrum. But the question remains, how ubiquitous are these objects in space? Recently, the WISE Survey Telescope was deployed into space, to find objects emitting infrared light. We will study L/T/Y class exclusively, as such a class is the most likely to be undiscovered due to low mass and due to elemental make-up, low-light. Brown dwarfs are failed stars about the size of Jupiter, with a much larger mass but not quite large enough to create fusion, the process that kick-starts the core engine of a star.



In comparison, the Pleiades are thought to be 100 light years across, with a core radius of eight light years. The Sisters, each are separated by between eight and 600 light years, with an average distance of 27 light-years; while the ten closest stars to the sun are only separated by between four and eight light-years.



2. Backyard Worlds: Planet 9 Citizen Science Project

The Wide-field Survey Explorer (WISE) has deepened our understanding of the Universe and the world around us, enhancing the abilities of global astronomers, professional and amateur alike, to discover low-spectrum objects in the night skies. The coldest of the white dwarfs, Y dwarfs, share a similar



temperature and mass as exoplanets in distant star systems, making them also possible candidates for life, no more or less than an exoplanet. Recently, citizen scientists even found Jupiter-like cloud bands on a Brown dwarf, similar to those also seen on Saturn. This Brown Dwarf, known as Luhman 16A, is part of a binary system, containing a second brown dwarf, Luhman 16B.

While this project has discovered hundreds of brown-dwarfs, mostly within roughly 60 light years, none have yet been discovered within 4 lights years, between our Sun, and the Alpha Centauri system. There are limitations related to Earth-based systems, as well as limitations related to manually having humans shift through data. In the event, that high-accuracy Deep Neural Networks are integrated into exo-solar telescopes, near-earth, or even ground-based systems, this will assist in the augmentation of human-detection helping to automatically detect low-spectrum objects. The vastness of space and the limited amounts of human eyes that are capable and trained to take on such a large undertaking, call for the implementation of Artificial Intelligence systems, in order to rapidly build a data-base of local exo-solar and low-spectrum objects.



3. The Nahir's Nose Theory

There are various efforts, such as the WISE Survey, that have searched for exo-solar low-spectrum objects, but a closer look at the probability of exo-solar low-spectrum objects within our immediate neighborhood has not been addressed. For example, one of the most popular equations, is the Drake's Equation, which determines the probability of Intelligent Life in the Universe, estimating between 1000 and 100,000,000 civilizations in the Milk Way galaxy. Because the original equation takes into consideration stars within the visible spectrum, the numbers and probabilities could be much higher. This additional factor is one that we hope to touch upon in a more meaningful way here.



If we go out 16.2 light-years from the Sun, there are 75 total stars. Most of these stars are densely clustered together within the span of a light-year. There are also new discoveries concerning how clusters of stars orbit one another, while they are orbiting the galactic center. The following tables and ensuing discussion, open up the possibility for there to be more conversations around the increased likelihood and probability of the existence of exo-solar and/or low-spectrum heavenly bodies within the distance of 1-4 light-years in all directions of the universal plane.



TABLE 1Stars per Light-year, within 16 light-years distance.

16 ly = 415 ly = 914 ly = 1113 ly = 912 ly = 711 ly = 1710 ly = 409 ly = 1 08 ly = 5 - Sirius A, B 07 ly = 106 ly = 2 - Luhman A, B - (Discovery Announced May 05, 2020) 05 ly = 104 ly = 3 - Alpha Centauri - 2 planets. 03 ly = 002 ly = 0 - The Nahir's Nose Theory. 01 ly = 000 ly = 1 - Sun

In Table 1, it is easier to comprehend how ubiquitous star systems are in the Universe. What is even more predictable is to see how improbable it appears that between 1-4 light-years away, there are no visible exo-solar, let-alone low-spectrum objects identified. There are a total of 75 identified stars, with the Luhman A and B, being the most recently discovered in May of 2020. With a minimum of three light years of supposed no exo-solar presence, out of 16 light-years and 75 heavenly bodies, there is no tangible evidence of exo-solar or low-spectrum objects. The probability of exo-solar objects and/or low-spectrum objects, such as Brown-dwarfs, *not* being discovered and soon, the probability of this occurring is 4% respectfully. In positive terms, there is a 96% probability of a visible star or low-spectrum object being present within 1-4 lights years from the Sun..

According to the Museum of Nature and Science, the brain automatically ignores the human nose. Thus, something manually must be done to adjust the way the mind works, in order to pay closer attention to those things that are right in front of you, such as exo-solar, or low-spectrum objects. Often times, when a person has something right on their face, they cannot see it unless there is a mirror so that they may look back at themselves. Thus, it is proposed that A.I. assisted telescopes are sent out, beyond Pluto, beyond the edges of the Oort Cloud, in order to explore the spaces between 1-4 light years from the Sun.

TABLE 2Local Star Density Equation

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If p*=density of stars
If N=number of light years =
Star Density Rating per Light-year
16 - p*=4*N=64
15 - p*=9*N=135
14 - p*=11*N=154
13 - P*=9*N=135
12 - p*=7*N=84
11 - D*=17*N=187
   - p*=4*N=40
10
09 - p*=1*N=9
08 - p*=5*N=8
07
    p*=1*N=7
06 - p*=2*N=12
  - p*=1*N=5
05
   - p*=3*N=12
04
03
   - p*=0*N=0
02
  - p*=0*N=0
01
  - p*=0*N=0
   - p*=0*N=0
00
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The Local Star Density Equation takes the number of stars within a light-year and multiplies them by the number of light years to create a Local Star Density Rating. This allows us to observe the regularity of star clusters from a different vantage point. However, even with observations using this novel method, a Star Density Rating per Light Year of "0", appears to also be highly improbable, based on the pattern and regularity of existing star-clusters within the local celestial neighborhood. The question came up whether there might be a Black hole that is in residence, and stars could have been flung out of place, but those answers do no solve all of the problems they create. If there were a black hole in this space, there would be debris that would be visible emanating from its center. Also, there is the possibility that the stars between 1-4 lights years were thrown out of orbit, but there would have to be some larger, denser body that would impact all other bodies within 3 lights years. There is currently, no evidence of any such tidal disturbance that could cause the destruction or the ejection of star clusters in the local field.

4. Discussion

Overall, there is a broader acceptance of the possibility of unseen objects, including objects as large as stars, within just a few lights years distance from our Sun. Until now, there has not been such a concerted effort to quantify the probability to local star systems existing within 1-4 light years of our own Sun. Much human effort has gone towards exploring heavenly bodies either extremely close, such as the planets in our own Solar System, or much more distant objects, that are often hundreds of light-years away. This discovery, brings hope to humanity, in its quest to discover more about the infinite possibilities that exist across the universe, as well as the inner depths of humanity. With new and modern spacecraft capable of traveling speeds of up to 150,000mph, a human transport vehicle could reach a potential star system, discovered within a distance of two light-years away, could be reached in less than 10 years. This means there is a high likelihood that today's children, will experience space travel on a level where it becomes a norm, similar to flight travel, but still not accessible to all. Additionally, low-spectrum objects or undiscovered objects also pose a security and safety hazard for successfully navigating the dangers of local as well as Deep Space.

5. References

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