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Origin of the Exoplanets with Reverse Orbitting and Spinning

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Editorial- The article of Johanna Miller, published in the journal of May of Physics Today [1], reported the observations of the exoplanet system K2-290 done by Simon Albrecht of Aarhus University and his PhD student Maria Hjorth. The exoplanetary system consisted of primary star orbited by Jupiter-like planet with 11 times the diameter of Earth with a period of orbiting 48 days and a sub-Neptune-like planet with diameter 3 times the diameter of the Earth and with a period of orbiting 9 days. The system also included red-dwarf star in binary configuration with the primary star. Their observations found that both planets orbit the primary star in direction opposite to the spinning of the star and spin in direction opposite to the spinning of the star. Explanation of the observed facts was actually not offered.

Here is my explanation. Observation on our solar system showed that all 8 planets orbit the Sun in the direction of spinning of the Sun and their orbits are only a few degrees out of the Sun's equatorial plane. Since during solar activity the equatorial area of the Sun is throwing spinning plasma balls from its anti-vortices, which are engulfed back by nearby vortices, I concluded that a strong gravitation from a passing-by Black Hall must have pulled larger spinning plasma balls from the active Sun, but was too distant to engulf them and left behind these large plasma balls cooled down with time and turned into planets [2]. This explains why the larger planets are at the periphery of the solar system and the smaller planets inward.

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Origin of the Exo-planets with Reversed Orbiting and Spinning

Prof. Maria Kuman

Editorial

The article of Johanna Miller, published in the journal of May of Physics Today [1], reported the observations of the exoplanet system K2-290 done by Simon Albrecht of Aarhus University and his PhD student Maria Hjorth. The exoplanetary system consisted of primary star orbited by Jupiter-like planet with 11 times the diameter of Earth with a period of orbiting 48 days and a sub-Neptune-like planet with diameter 3 times the diameter of the Earth and with a period of orbiting 9 days. The system also included red-dwarf star in binary configuration with the primary star. Their observations found that both planets orbit the primary star in direction opposite to the spinning of the star and spin in direction opposite to the spinning of the star. Explanation of the observed facts was actually not offered.

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In a series of articles published in Global Journals, I explained the birth [2] and death [3] of the stars. All newly created stars are very bright. They fuse hydrogen into helium and this is the source of their light energy. However, with time as more and more hydrogen is turned into helium their brightness decreases. The middle age stars are yellow in color, like our Sun, and for them more than half of the hydrogen has been already transformed into helium. As the stars continue to age gradually they run out of hydrogen fuel. When this happen, they turn into red stars.

When a medium size red star (up to eight solar masses) runs out of hydrogen, it starts to collapse and attract closer and closer the planets orbiting it, which now orbit and spin inward in the direction of the collapsing star. Since the contracting red star now generates heat by fusing carbon and oxygen into helium [4], to sustain their heat production the contracting red stars start attracting closer and closer the nearby planets containing carbon and oxygen, peal them layer by layer, and engulf the layers for fuel.

In the final stage of star evolution, the stars are white dwarfs that barely shine. Thus, observing white dwarfs and what is left from the planets orbiting them is the end of stars lifetime. The dwarf stars with carbon and oxygen cores continue to cool down for millions of years. Until recently, we didn't know much about the white dwarfs because they barely shine and they are difficult to observe. Even more difficult is to observe the remnants of planets orbiting them [4].

Since dwarfs are faint, the observations are limited to those parts of the sky, in which stars are scars and dim. Also the orbital plane around the dwarf needs to lie on the earth's line of sight to be observed. For that reason, the second reported observation of a planetary remnant orbiting a white dwarf was in 2019 reported in the journal Physics Today [4]. Christopher Manser and Boris Gansicke, from the University of Warwick in the UK [5], have now developed a spectroscopic approach. Judging by the spectrum of this white dwarf 400 light years away, metallic planetary core rich of iron was orbiting the white dwarf with a period of 2 hours.

The remnants of planetary body orbiting the dwarf star could be the iron core of a former planet that once orbited much farther away from the star. When the star became a red star and started to collapse, it drew the planets orbiting it closer and closer, pealed them layer-by-layer, and used the pealed layers for fuel. As the remnants of planets became smaller and smaller, they orbited faster, which explains the observed short (hours) periods of planet's orbiting around the dwarf star.

Thus, the stars at younger age gave birth of the planets orbiting them [2]. However, toward the end of stars' lifetime when the aging stars become low-energy red stars, which fuse carbon and oxygen for energy production, they start drawing the planets orbiting them closer and closer. Pealing them layer-by-layer, the red stars use the planetary pealed carbon and oxygen material for fuel to sustain their life. This is recycling of the planets at the end of stars' lifetime before the star

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would collapse into a white dwarf and then into a neutron star.

For that reason, when white dwarf are observed, which barely shine and are the last stage of star evolution, the observed periodic decreases of the dwarf's shining is caused by the passage of remnants of planets, which once orbited the star. These remnants of planets orbit closer and closer to the dwarf stars with higher speed and smaller periods (hours) obviously ready to be engulfed by the dwarf stars before the end of their lifetime.

When the last source of energy, the material of the planets orbiting the dwarf stars has been used, they will collapse into neutron stars. The neutron stars merge and when the number of the collapsing together neutron stars reaches a critical mass, they will turn into a Black Hole. (Recent measurement of the lifetime of neutron stars found that only a small percentage of the decaying neutrons turn into dark matter [6], which explains why the merging neutron stars need to reach a critical mass before to collapse into a Black Hole.) Then the Black Holes merge and this continues until they merge into the primary Black Hole that created the whole Universe.

If so, the planets of the exoplanet system K2 290, which orbited the primary star in direction opposite to the star's spinning and span in opposite direction of the primary star originally belonged to the red star, which was in binary configuration with the primary star. The primary star adopted these planets because when the planets orbit and spin in direction opposite to the primary star, their magnetic moments can couple with the magnetic moment of the spinning in opposite direction primary star.

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