Binary Stars

According to 'MATTER (Re-examined)'

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Abstract

Circular/elliptical paths of stars in a binary/multi-star system (and elliptical planetary orbits about their central bodies) are untenable and physically impossible propositions.

Existence of binary star (and multi star) systems is a widely believed supposition. In binary systems, two stars (along with their accompanying macro bodies) are assumed to revolve in circular paths around their barycenter in space. In multi star systems, more than two stars are assumed to orbit around a common barycenter. Stability of their paths is attributed to gravitational attraction between them and the centrifugal actions due to their curved (circular) paths. Each system is assumed to float independently in space without external help. External influences (like gravitational attraction between neighboring bodies or impacts with external bodies) are ignored. Often their orbiting paths may differ from conventional elliptical shape to facilitate the assumption. Macro bodies (independently or in groups), floating freely in space is very illogical and contrary to physical realities.

All macro bodies in universe (except stable galaxies but including member-stars of binary systems) have translational motion in space at very high linear speeds. [Stable galaxies have special mechanisms that keep them floating in space without translation]. Mutual gravitational attraction between macro bodies in space initiates and sustains their high linear speeds within respective galaxies. Their individualities and directions of their motion with respect to another body are sustained by balance between centrifugal actions due to their paths in space and mutual gravitational attraction towards galactic center and neighboring bodies. In a binary system; should gravitational attraction between the stars overwhelms other efforts, they will collide and should centrifugal actions (or actions due to external factors) overwhelm gravitational attraction, the stars would move away from each other to pursue independent paths of their own.

In reality, it is physically impossible for a free macro body to revolve around another moving body in any kind of geometrically closed path. [This can be clarified by observing a person trying to move around another person walking along a defined path]. Each body in space has its own independent linear path. Shape of this path may be influenced by external factors (to some extent) to alter its linearity. Within a stable galaxy, every macro body tends to move around the galactic center at great linear speed. Therefore, circular/elliptical paths of stars in a binary/multi star system (and elliptical planetary orbits about their central bodies) are untenable and physically impossible proposition. [See: http://vixra.org/pdf/1311.0018v1.pdf]. Yet, cosmological analyses in contemporary text books depend heavily on this impossible proposition. Proofs of few other theories in physics are also partially based on this suggestion.

Since we have no absolute reference, paths of cosmic bodies are usually determined with respect a stationary point (or another body assumed in static state) in space. This relative consideration, which does not constitute real affairs, is suitable to predict cyclic (yearly) changes in parameters of participating bodies. Assigning reality to these assumed relative paths of bodies in analyses of orbital movements would not produce authentic results. I think this a fundamental flaw in contemporary cosmology.

Real paths of stars in a binary system:

Two stars of equal 3D matter-contents (masses), moving in more or less parallel paths in the same direction but approaching each other under mutual gravitational attraction may gradually change directions of their paths to spiral about a central path (as shown in the figure). They may appear as members of a binary star system for a short while. Figure shows real paths of two stars A and B in a critically stable binary star system. Positions A_1, A_2, A_3, A_4, etc. of star A correspond to B_1, B_2, B_3, B_4, etc. of star B. Bold curved lines with arrows show real paths of stars A and B. Gray ellipses represent apparent circular paths of the stars at different positions along their paths. Gray lines, joining the stars, show lines of gravitational attraction between the stars. If 3D matter-contents (masses) of these stars are different, their paths may not trace same apparent circular path. Each star may have different apparent path but around barycentre of the combination.

Real paths of stars in a critically stable binary system
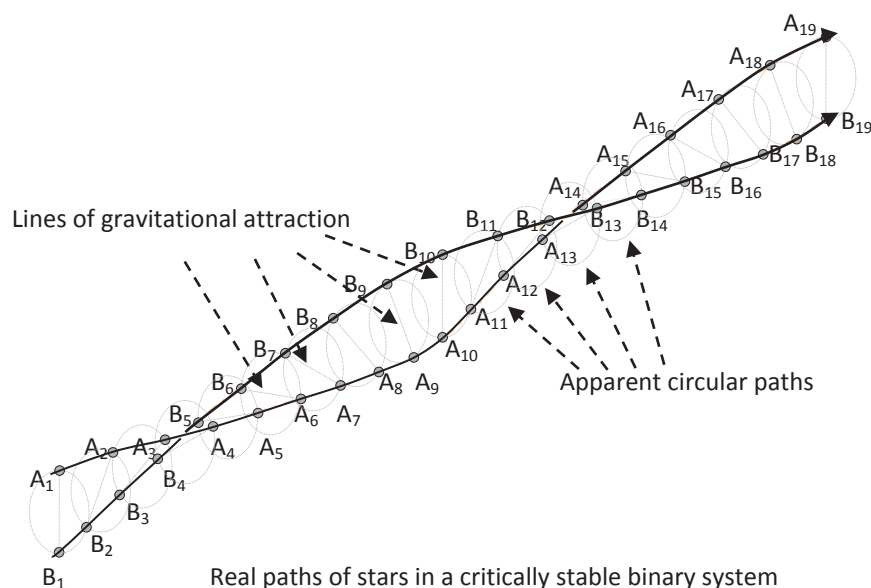
Space is populated with numerous macro bodies. All of these bodies exert gravitational attraction between each of them and constituent stars in a binary star system. Due to apparent circular motion of these stars, distances between each of the constituent stars and an external body vary continuously. Variations in distances affect magnitudes of gravitational attraction between each pair unevenly to affect directions of their paths. Additionally, total 3D matter-contents (masses) of these stars may vary by assimilating random bodies in space as they pass near. Hence, stability of such a system is very critical. Even slightest changes in their 3D matter-contents, variation in external influences or uneven distribution of their 3D matter-contents within their bodies would make the system unstable and disintegrate into individual stars, moving in independent directions. Hence, supposition of stable binary star systems is merely an imaginary exercise.

Cases of multi-star systems are also similar. They are analyzed relative to their common barycenters. Barycenters are imaginary points to facilitate analyses of relative movements of these bodies. Only true actions on or by the bodies can provide accurate status. Real motion of every macro body is with respect to an absolute reference in space, which can be provided by a universal medium that fills the entire space outside the most basic 3D matter-particles (See: http://vixra.org/pdf/1007.0042v2.pdf). In all these cases, gravitational attraction towards all other bodies in space (within active range) has to be considered. As the range of gravitational attraction is infinite, its active range is huge distance. Neither free bodies nor groups of bodies float freely in space. Stable galaxies have a mechanism that keeps them floating in space without translation [See: http://vixra.org/pdf/1101.0016v4.pdf].

Reference:

[1] Nainan K. Varghese, *MATTER (Re-examined)',* http://www.matterdoc.info

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