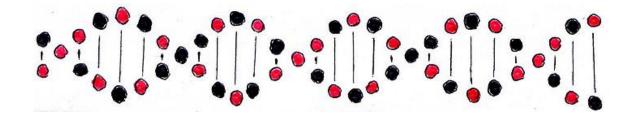


# The Rings of Force that Cause the Tides

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Abstract. It is generally accepted that the tidal force is due to an inverse cube law force field. However, it is wrongly believed that this inverse cube law force field is the product of differential gravity. The lunar and solar orbits are nearly circular, and as such, gravity cannot be a factor in the tides, because it will have been nullified by orbital centrifugal force. We need to look to a non-convective pressure force which squeezes the planets at the sides, such that if the planets were to be made of pure liquid, they would be shaped like an ellipsoid aligned along the direction which joins any two planetary bodies.



## Gravity

I. In "The Double Helix Theory of the Magnetic Field" [1], [2], it was suggested that space is densely packed with rotating electron-positron dipoles. A radial electrostatic force field around a charged body will linearly polarize these dipoles. Polarization of a rotating dipole will result in a precession where the precession axis is parallel to the electrostatic lines of force. This will result in a centrifugal pressure acting sideways from the lines of force. If the electrostatic force is sink-based, then two like bodies will attract each other unless the force is strong enough to induce an even stronger centrifugal pressure to act laterally from the field lines, in which case, two like bodies will repel each other [3]. We see the case of mutual attraction in planetary orbits. Centrifugal force obeys an inverse cube law, so if the electrostatic force is weak and sink-based and obeys an inverse square law, it may exceed the inverse cube law centrifugal force in magnitude, and mutual attraction will prevail. We call this gravity. If the gravitational force were however to increase in magnitude due to decreasing distance of separation between two planets, then the centrifugal force, being an inverse cube law force, will increase at a greater rate, and a point will be reached where the centrifugal repulsion surpasses the gravitational attraction.

### The Tidal Rings of Force

**II**. Even in the absence of any orbital motion where we would normally consider centrifugal force to be zero, there will still nevertheless be centrifugal pressure acting sideways from the gravitational field lines. When two planetary bodies come close to each other, their mutual gravitational fields distort each other to form a cylindrically symmetrical pattern centred around a line joining the two planets. It should be noted that the Earth doesn't then remotely fall within the Moon's direct gravitational jurisdiction and so we cannot attribute the tides to the Moon's or indeed the Sun's gravity. The Moon's gravity is never going to lift anything upwards off the surface of the Earth. We need to look to the centrifugal pressure that acts sideways from the field lines. This pressure, which is due to centrifugal force emanating from the tiny electron-positron vortices striving to dilate (the Newton's rotating bucket effect), normally acts at right angles to the lines of force. However, the cylindrical symmetry of the interacting gravitational fields of the two planetary bodies will cause the precession axes of the vortices to tilt in a manner such that rings of force will form and have a constricting effect that will squeeze laterally on the two planetary bodies, concentric on the line joining them. The extent of the realignment of the precessional axes of the tiny vortices will depend on the gravitational mass of each planet and their mutual proximity. This is the tidal force which we know from measurement to exhibit an inverse cube law in distance, as is also the case with centrifugal force in planetary orbits. The tidal force takes the form of "rings of force" centred around the line joining any two planets. There doesn't have to be any orbital motion. Where there is substantial fluid present on the surface of a planet, these rings of force cause the fluid to elongate along the line that joins the two planets, resulting in the familiar tidal bulges. Hence, the main tides on the Earth are indeed connected with the Moon's gravitational field, but not in the manner generally believed.

### Conclusion

III. The tides are caused by rings of force which form concentric circles around the line joining two planetary bodies. This causes a constriction effect which squeezes sideways on the planets such that if they were composed entirely of fluid, they would become elongated into ellipsoids. These rings of force are derived from the centrifugal pressure that emanates sideways from the gravitational lines of force due to the effect that gravity has on the all-pervading background sea of rotating electron-positron dipoles. Gravity causes these dipoles to precess on an axis parallel to the lines of force so that centrifugal pressure is exerted perpendicularly to gravity. However, the cylindrical

symmetry associated with the two-planet system causes a realignment of the precessional axes of the tiny dipolar vortices in a manner that results in the rings of force. As in the case of all dipole fields, such as in the case of the centrifugal force in planetary orbits, the tidal force obeys an inverse cube law.

#### References

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[3] Tombe, F.D., "Maxwell's Equations Extended to Gravity" (2017) <a href="https://www.researchgate.net/publication/322317219">https://www.researchgate.net/publication/322317219</a> Maxwell's Equations Extended to Gravity\_T he\_Link\_Between\_Gravity\_and\_Electromagnetism