

Genesis of the Solar Wind

As per the recent recorded data on the solar wind close to the surface of the sun, the wind velocity varied from a minimum of about 380 km/s to the maximum of about 500 km/s, giving an average of 440 km/s [<http://soho.nascom.nasa.gov/> ; 48 hours of solar wind data on 10 July 2002]. While the sun rotates axially at a peripheral speed of about 2 km/s at the equator in the plane at right angles to its axis, the reason for so high a wind velocity is briefly explained with the principles of space vortex theory.

Rene Descartes, the great French philosopher and mathematician, in his Vortex Theory, postulated around the middle of the 17th century that the solar system is a large vortex of ether (space) that he defined to be a “property less” fluid. And in this vortex, the planets were carried along their orbits with no relative motion between them and the surrounding ether. “He firmly denied that the earth moved (relative to the neighboring space medium), and asserted that it was carried along with its water and air in one of those larger motions of the celestial ether which produce the diurnal and annual revolutions of the solar system” [Pioneers of Science; Sir Oliver Lodge; Dover Publications, INC.]. His above concept was powerful enough to protect him against any possible persecution by the church which, unlike Galileo, did not occur. That Descartes was right in his principles is clear from the fact that in addition to the explanation and derivation of the most basic phenomenon of surface gravity of the sun and the planets, the genesis of the solar wind close to the sun’s surface can also be computed with the principles of Space Vortex Theory (SVT) which has postulates very similar to the Cartesian Philosophy.

In my paper “On Planetary Motion caused by Solar Space Vortex” [Journal of New Energy, Vol. 3, No. 2/3, August 1998], Kepler’s third law was derived, showing that the orbital speed of a planet is inversely proportional to the square root of the distance

from the sun's center. If v is the orbital velocity of a planet whose orbit is at a distance r from the sun

$$v = k / (r)^{1/2} \quad (1)$$

where k is a constant of the solar space vortex.

Substituting the known value of the orbital speed of the planet mercury (it can be any other planet also) and its distance from the sun in (1), k is determined. Now, using this value of k , and substituting in (1) the sun's radius for r , it is calculated in the paper referred above that: $v = 436.7 \text{ km / s}$. This shows that in the near hood of the sun's surface, its gaseous matter will be subjected to a maximum average velocity of 436.7 km / s , due to fluid-space circulation around the sun in the solar space vortex. The above computed value is so very close to the recorded data (440 km / s) mentioned above.

The existence of the solar space vortex and the reality of the space-circulation gets proved (in the earlier paper) by deriving the surface gravity of the sun as: $g_s = v^2 / R_s$, where v is the space velocity calculated above, R_s is the radius of the sun and g_s is its surface gravity. The value of 274 m / s^2 obtained through the above calculations is exactly the same as accepted to day.

It is most unlikely that through any other contemporary physical theories so accurate quantitative results and physical explanations revealing the genesis of the solar wind can be had.