The Laws of Motion

Rotations, Revolutions and Apparent Motions of Heavenly Bodies:

Paul Schroeder

Summarizing my views of galaxies suggests outlining a preliminary set of motion laws, and corollaries.

> We first step back to the Copernican revolution ending the Ptolemaic, Earth centered sun revolving, view. Earth centric worked with sub orbitals, but sun centered requires less adjustments. Are revolution vs rotation in two body systems interchangeable? Impressions are that it is the outside issues from which one decides what is right.

Revolution vs Rotation

That the planets most logically orbit the sun is what led Copernicus to propose the sun centric system. But given enough subsystems, could we go back to earth centric system? There is even a third workable two body system in which earth circles the sun daily.

It takes the Paep pushing gravity systems to lock in the sun centric system. Paeps become the outside component, like planets, that define the center.

A. The relativity of rotation:

Law 1.

Rotation and revolution are interchangeable concepts between two bodies in a vacuumwhich are in relative motion while retaining the same distance. Neither is a privileged non-rotating or stationary body.

Corollary 1.

Specifying rotation vs revolution motion depends upon our determination of apparent motions of other relevant bodies

Rotation 2

Corollary 2.

Specifying rotation vs revolution may alter if a determination of other relative motions is changed. For example, ignoring other motions allows converting the Copernican revolution, in which earth revolves counterclockwise around the sun, back to the sun circling the earth.

Rotation 3

Law 2.

Paep gravity is the “other relevant motion” negating law 1.

Law 3.

Specifying the nature of spatial motion is deeded to an outside observer stationed, or imagined to be, north of the defined platform/plane containing the motions. A participating observer makes assumptions by becoming a virtual outside observers in order to theorize the nature of motions.

Law 4.

Orbital directions in space may be labeled clockwise or counterclockwise relative to an outside observer. That corresponds to our usual view of earth’s activities from the north Z axis. All larger planes such as the ecliptic and galaxy planes have a Z axis whose north is ‘by definition’ within 90 degrees of earth’s north. So revolutions are counterclockwise.

B. “Otherwise” Laws of Space

Law 1

Space serves as the container for substance and provides the forces which create motion among the substances. Space provides the gravitational mechanism we call attraction. Space, distorted by rotating mass, provides the “drive motive” which offsets the attraction force by providing the rotational impetus for motion.

Corollary 1

Rotations within space insure continual separation of bodies.

Corollary 2.

There is no absolute vacuum region, as suggested by Newton, where motion continues for lack of potential interference such as friction. Such a void would not exist as space nor have dimension.

Corollary 3.

Two bodies in space neither collide nor separate permanently because of the way their relative rotations modify space locally.

law 2 of Space

Any body, such as the sun, serving as the center, and as the cause of revolution for other bodies/orbitals, is likewise influenced by each orbital and attempts to revolve around the orbital. The small quantity of force generated, along with the motion of the orbital results in the suns motion approximating rotation rather than revolution. The related force calculations upon the sun and upon the planets are separate and result in a barycenter of gravity around which each body revolves.

Corollary 1.

Most centers of gravity lie within the sun for our solar system because of the extreme differences in size. The multiple centers each form a rotation center for the sun.

Law 3 of Space

The more equal in size two masses are, the more central is their theoretical revolution point. GIven two equal masses, each mass serves as origin to a revolving coordinate system of which the other body is a part. The revolution periods are ¼ or less of that determined by Kepler's formula. Choosing which mass to consider as the center of revolution is optional.

Corollary 1.

Two bodies revolving around a central point provide optional views of relative revolution. One body may be thought of as stationary in which case the center of mass and the other body revolve around it, both in the same time period. Equivalently one body may be stationary and rotate such that the other body and the center of mass are stationary relative to it. The relative action of outside bodies determines which motions are assumed.

Law 4 of Space

When equal sized adjacent bodies are rotating in similar directions, their rotations drive each other into orbital motions.

corollary 1.

A body #2, orbiting another and approaching others may be driven and passed from one orbital center to the next rather than completing its original orbit. The more bodies supplying the drive, the more linear becomes the appearance of body 2s line of passage.

Law 5 of space

Were there 2 adjacent bodies rotating oppositely (clockwise vs counterclockwise) along a common plane, they would push each other in the same linear direction and create swirls that violate the continuation of separation. Picture them occupying 2 ends of a figure U, moving down together, and eventually colliding at the bottom center.

Corollary 1.

Opposite rotation can occur in a plane only when radial separation of the orbitals is immense. Overlapping push causes turbulence that leads to inclined orbits. Collisions are avoided throughout space

Law 6 of Space

If body 1, originally driven by body 2, passes between body 2 and a body 3, the body 1 orbital must follow an inclined path to avoid the center of revolution vortex and to avoid body 3.

Law 7 of Space

Assume all equal sized bodies in a group are rotating counterclockwise. An outside or a participating observer will determine that all bodies are revolving relative to their adjacent bodies. The relative revolutions along a line of bodies are cumulative so that the farther the observer looks in any direction; the more rapid the orbital motions measure relative to him on their circumferencs.

Corollary 1.

Apparent linear motion velocity depends on the angular motion of the line of sight. Apparent velocity of distant bodies increases up to 90 degrees of cumulative angles of revolution. Higher angles curve motion back toward the observer, limiting the apparent speed and ultimately the distance of separation between observer and target.

Law 8 of Space

It is the spin of a central body that determines the action and existence of its orbitals. The quantity of effect varies with the tilt of the orbital plane. The maximum rate of spin occurs at the equator and diminishes as you approach its poles.

Corollary 1.

In the solar system, most orbital bodies exist near the ecliptic, on the spin line of the sun, because that is where the sun supports them by its maximum rotation velocity.

Law 9

Orbits are elliptical rather than circular because there is a secondary force of attraction centered at a second focus which represents the summary influence of all outside forces.

Corollary 1.

The real body being orbited supplies the revolution impetus. The secondary/imaginary focus provides no revolution impetus and interferes with the ongoing revolution. That causes an orbital to redirect toward perigee, incur less swirling and lose some of its forward motion pressure.

C. Laws of motions within galaxies

Galaxy Law 1.

A series of equally spaced stars in a line, rotating counterclockwise, will each swirl their adjacent star into orbit so that the line may gradually bend to the left. The bending establishes the apparent speed of rotational motion. Observers will view a nearby rotating body as revolving and will calculate that more distant bodies in linear sequence move faster. The relative revolutions add up. The maximum linear speed occurs when the revolution angles sum to 90 degrees.

Galaxy Law 2

Bent lines of stars form arms and stars far from a galaxy center form arm ends. As the angle of bending approaches or exceeds 90 degrees at arms end, the distant stars apparent motion will either: 1. Appear about to escape. 2. Achieve the exact velocity to continue orbiting the galaxy center. 3. Further increase the angle thus falling back toward the galaxy center.

The actual motion depends on the length of the arm, the distance of adjacent stars and the stellar concentration within the center and within the arm.

Galaxy Law 2 Corollaries

Corollary 1. Fall back/returning stars, in arms which bend 180 degree, will probably not complete orbiting their neighbor nor pass between two stars. They will be passed from one mainline star's control to another and 'slide' along the bottom of the arm.

Corollary 2. A dense bunch of stars will bend an arm more than a sparse region does. Stars sufficiently departed from dense regions have a linear motion which reduces the bending relative to the center.

Galaxy Law 3

The gravitational retention and the velocity of an orbital depend on the rotation speed of a dense galaxy center. Rotation speed is maximum at the equator and lesser at higher latitudes. The greater the angle above or below the galaxy disk, the less the center will retain lines of orbitals. The shortened lines will suggest a dome above and below the center.

Galaxy Law 4

Orbits of stars near the galaxy center or a cluster center are tilted relative to the disk of the galaxy. The highest declinations occur nearest the galaxy center. They display polar regions to the galaxy plane presenting a different look. Thus they appear different, giving us the impression of being older stars.

Galaxy Law 4 Cont.

Corollary 1.

Stars along the galaxy disk rotate approximately in our plane so their makeup appears similar to our sun. We see their brightness and call them younger.

Paul Schroeder

pshrodr8@aol.com