the general science journal

Flywheel Moving at Relativistic Speed

© Declan Traill 10/1/2002
declan@netspace.net.au

The principle of Relativity means that the laws of Physics remain un-altered by the translatory motion of a co-ordinate system through space. Therefore the Physics of a flywheel rotating with its axis perpendicular to the direction of motion whilst undergoing such translatory motion must also be bound by this requirement. No asymmetry in the centripetal force of the rotating mass of the flywheel at different locations around the wheel should be detected.

It has been suggested that if space is absolute, there would be a different force detected when the mass of the flywheel is travelling in the direction of motion as opposed to against the direction of motion. However, this is not the case.

Applying the principles of Energy Field Theory to this experimental configuration provides an explanation for this:

The waves comprising the matter of the flywheel will travel through absolute space at a fixed transmission speed. Therefore, the speed (with respect to the centre of the flywheel) of the waves moving in the upstream direction on one side of the flywheel will be less than the downstream waves on the other side. Thus the wave crests will 'pile up' as they turn the corner towards the upstream direction (length contraction) and spread out in the downstream direction.

This will result in an asymmetry in the distribution of the flywheel's mass (as mass is a measure of the wave activity) accompanying the asymmetry in speed of the waves with respect to the centre of the flywheel. Thus a larger mass moving at a slower speed provides an equal centripetal force to a smaller mass moving at a higher speed. Therefore the forces on the centre of the flywheel remain balanced and no difference is detected.

As the length of matter travelling upstream (higher absolute speed through space) would be contracted more than that travelling downstream, one might expect that the measured geometry of the flywheel would be different on each side (upstream/downstream). However, accompanying the contracted length of the matter comprising the upstream side of the flywheel is the asymmetry in the distribution of the flywheel's mass. So the upstream side would be comprised of more closely packed atoms, but more of them – giving the same measured length as the downstream side, where there are fewer atoms, but spaced further apart. This means that the geometry is retained, and the observer travelling with the flywheel will not record any asymmetry in measurements of the radii at different parts of the flywheel.