

Particle Chamber Theory explains how Dark Matter clouds pass through each other
James Collins Sr. April 8 2009

The article on the WEB titled “Cosmic 'train wreck' defies dark matter theories” at <http://www.newscientist.com/article/dn12497> describes the phenomena of dark matter clouds passing through one another. It also references the “Bullet Cluster” which demonstrates one Dark Matter cloud passing through a second. The Particle Chamber Theory of Dark Matter * explains this unique observation. It identifies dark Matter as a particle one microgram of mass suspended in a cubical volume one kilometer on a side.

This theory supports and explains the concept of clouds of dark matter flowing through each other. Separate clouds of particles with different velocity vectors would pass through each other with minor probability of collision because of the ratio of particle size to volume. The particle velocities would be unaffected unless two particles (one from each cloud) collided - an extremely rare occurrence.

We can calculate the probability of two of these particles colliding to explain how the clouds “pass through” each other

Assume two chambers (each one kilometer on a side with a single particle randomly located in each) are approaching head on. Now examine both chambers and take a slice, the thickness of the particle, across each chamber. Each slice contains the particle in its chamber; is normal to the track and both are approaching each other. Each slice is one kilometer by one kilometer and contains a million square meters. Arbitrarily we will use the particle on the left as the master. Now the particle on the right can be in any of one million locations. Only one will allow a collision; we select that condition.

Now we have two one meter square surfaces approaching each other. Our master particle is still on the left but the right hand surface has a number of random locations which won't cause an impact. The size of the particle is our first concern. In 2.1.1 of the Particle Chamber Theory paper the particle diameter is calculated as

$$D = 90^{-6} \text{ meter}$$

Collision occurs if the particles impact head on or if they just graze each other. Therefore see Fig 1 for a pictorial of the potential impact area. Effectively the area of contact is a circle surrounding particle with a diameter three times that calculated for the particle.

Conservatively and to simplify the mathematics the area is considered a square whose Side $S = 270^{-6}$ meter

In a meter length there are $1/270^{-6} = 3703.7$ elements

In a square meter there are $(3703.7)^2 = 13.71^6$ locations

Only one of these will permit a collision

Therefore the chance of collision between two particles is;

$$1^6 \times 13.71^6 = 13.71^{12}$$

Therefore one chance out of 13.71^{12}

*The Particle Chamber Theory of Dark Matter was published on the WEB April 2007 under collinsconsultinggroup.com

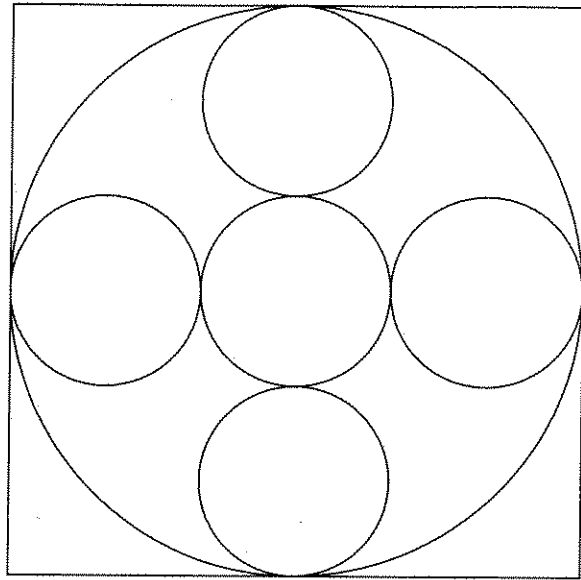


Fig 1 Particle at center surrounded by tangent potential impacts .
Square indicates excluded area to avoid impact