



Law of Gravitation for Non-Intractable Particles

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Abstract- The Law Of Gravitation According To Non-Interactive Mechanics, Application Of Non-interactive Mechanics And It's Gravitation Formula In Newton's Laws Of Motion , Non-Interactive Particle Is The First Force Of Each Action, Existence Of Non-Intractable Particles In Space And Solar System , why Graviton Should Be A Non-Interactive Particle. Why Any Mass State Can't Be In Rest In Universe According To Classical And Non-Interactive Mechanics, The Free Movement Of Non-Intractable Particles In Universe.

Keywords- Gravitation Formula According To Non-Interactive Mechanics, Application In Newton's Laws Of Motion, Graviton

Article Outline:

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3. Application Of Non-interactive Mechanics And Gravitation Formula Of Non – Intractable Particles In Newton's Law Of Motion-
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5. why Graviton Should Be A Non-Interactive Particle.
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I. INTRODUCTION

In This Manuscript We Will Study About The Gravitation Formula Of Non-Interactive This Formula is Derived From The Sir Isaac Newton's Gravitation Formula ,Then By Using Non-Interactive Mechanics We Will Study How The Gravitation Formula Of Non-Interactive Mechanics Represents Sir Newton's Laws Of Motion, Here We Will Discuss First Law , Second Law And Third Law ,Then We Will Study Non-Interactive Particles Are The First Force And Work Of Each Action. why Graviton Should Be A Non-Interactive Particle. Why Any Mass State Can't Be In Rest In Universe According To Classical And Non-Interactive Mechanics.

The Free Movement of Non-Intractable Particles in Universe Existence of Non-Intractable Particles in Space and Solar System.

II. THE LAW OF GRAVITATION ACCORDING TO NON-INTERACTIVE MECHANICS

We Need An Extension To Understand Gravitation Correctly

Gravitation Has A Long Story In The Branch Of Physics The Concept Of Gravitation Arise From Isaac Newton According To Newton The 'Attraction And Repulsion Force Between Two Bodies Is Directly Proportional To The Multiplication Of Their Masses And Inversely Proportional To The Square Of The Distance Between Them. Mathematically According To Newton-

$$F = G \frac{m_1 m_2}{(r)^2} \quad \text{-(1)}$$

Now If We Have $m_1 = m_2$ So

$$F = G \frac{M^2}{(r)^2}$$

Now According To Non-Interactive Mechanics $N = M^2$ This Condition Satisfies The Relativistic Condition $E^2 = P^2 C^2 + M^2 C^4$, So We Have Above Equation In Form

$$F = G \frac{N}{(r)^2} \quad -(2)$$

According To This Relation The Law Of Gravitational Force For Non-Intractable Particles Is -

‘Attraction And Repulsion Force Between Two Bodies Is Directly Proportional To The Non-Interactive Particle Present Between Them And Inversely Proportional To The Distance Between Them’.

According To Non-Interactive Mechanics Non-Intractable Particles Are Faster Than The Velocity Of Light (20817.22m/sec Faster Than Light) So For A Object Or Particle Which Is In Material Field Is Almost Impossible To Distinguish Between Infinite Non-Intractable Particles So According To This Equation – (2) Can Be Written As

$$F = G \frac{N(\infty)}{(r)^2} \quad -(3) \text{ As } N(\infty) \text{ Shows Infinite Number Of Non-Intractable Particles}$$

According To Non-Interactive Mechanics

$N = -(M)$ Here $-M$ Describes Disintegrated Matter, Substituting This in Above Equation

$$F = G \frac{-M(\infty)}{(r)^2} \quad -(4)$$

According To Equation –(1), –(2) And –(4)

“ Two Bodies Of Same Mass Are Able To Generate Infinite Number Of Non-intractable Particles While The Distance Between Them Is Same As Before Generation Of Non-Intractable Particles When These Non-Intractable Particles Disintegrate Matter (As According To Non-Interactive Mechanics) Then It Connect With The All Material Field While The Distance Is Same Between Them And Through This System The Two Bodies Are Able To Generate Gravitational Force To All The System They Are Connected Materially”.

So The Statement Of Gravitational Law Of Non-Intractable Particles Are:

1. Attraction And Repulsion Force Between Two Bodies Is Directly Proportional To The Non-Interactive Particle Present Between Them And Inversely Proportional To The Distance Between Them.
2. Two Bodies Of Same Mass Are Able To Generate Infinite Number Of Non-intractable Particles While The Distance Between Them Is Same AS Before Generation Of Non-Intractable Particles When These Non-Intractable Particles Disintegrate Matter (As According To Non-Interactive Mechanics) Then It Connect With The All Material Field While The Distance Is Same Between Them And Through This System The Two Bodies Are Able To Generate Gravitational Force To All The System They Are Connected Materially.
3. The Less Distance Between The Bodies The Force Of Attraction Or Repulsion Becomes Powerful, This Led More Matter Emits From The Non-Intractable Particle And N Intend To Weaker And Weaker To The Point $N=0$.

III. LAWS OF EQUAL MASS BODIES

Two Mass Bodies Are Able To Generate Minimum One Non – Intractable Particle between them Only When the Distance Between Them IS 1Unit (Unit Such As m Or Km.) If The Distance Between Them Is r , Then The Force Of Attraction Or Repulsion Between Them Is Unit Then The Formula Of Non Intractable Particle Is

$$F = G \frac{N}{(r)^2}$$

If r Is One And One Non-Intractable Particle Is Generating Then

$$F = G$$

$$F = G$$

$$F = 6.67 * (10)^{-11} N \cdot (m)^2 / (kg)^2$$

According To This Equation The Minimum Required Force Is same As The Value Of G To Generate one Non-Intractable Particle Between Them.

Application Of Non-Interactive Mechanics And Gravitation Formula Of Non –Intractable Particles In Newton’s Law Of Motion-

A. The First Law Of Motion-Law Of Inertia

From Equation –(2) We Have

$$F = G \frac{N}{(r)^2}$$

According To Non-Interactive Mechanics

$$N = -M \pm \sqrt{N^2 + 2NM + (M)^2}$$

Applying The Value Of N In Above Equation We Have

$$F = G \frac{-M \pm \sqrt{N^2 + 2NM + (M)^2}}{(r)^2}$$

Now For The Case Non-Intractable Particle Is Not Present In The Matter Field Then $N = 0$ In Above Equation

$$F = G \frac{-M \pm \sqrt{(M)^2}}{(r)^2}$$

This Gives

$$F = G \frac{-M \pm M}{(r)^2} \quad -(5)$$

For +Ve Value We Have

$$F = G \frac{-M + M}{(r)^2}$$

$$F = 0 \quad -(6)$$

This States ‘ If A Mass Body Is In Rest Then It Will Be In Rest And If The Mass Body Is Moving Then It Will Be In Moving Until A External Force Change It’s State’.

This Explains The Gravitational Law of Non-Intractable Particles and Rules of Non-Interactive Mechanics Follow and Satisfy Sir Newton’s First Law Of Motion.

B. The Second Law Of Motion- Law Of Force

From Eq.-(6)

$$F = 0$$

For This We Can Assume $dV/dt = 0$, Therefore $V = \text{Constant}$

First we Have Two Condition Where A Mass Body (m) Is At Rest On A Point X Then Reaching To The Point Y It’s Velocity Is V With Respect To Time t

So At The Point Y Momentum Of Mass Body Is P When Non-Intractable Particle Is Not Present

$$P = m V$$

So At Point Y The Force Equation W.R.T Time t Can Be Written As

$$F = \frac{d}{dt}(mV)$$

$$F = \frac{dP}{dt}$$

‘The Time-Rate Of Change Of Momentum Is Proportional To The Impressed Force’

This Is Sir Newton’s Second Law Of Motion Which Is Derived By The Law Of Gravitation Of Non-Intractable Particles And Non-Interactive Mechanics.

Above Eq. Can Be Written As

$$F = m \frac{dV}{dt}$$

$$F = m \cdot a$$

$$\text{Force} = \text{mass} * \text{acceleration}$$

C. The Third Law Of Motion- Law Of Action And Reaction

For Third Law Of Motion We Have To A Phenomena Of Non-Interactive Mechanics According To That

‘Every Material particle Is The Combination Of Non-Interactive Particle And matter’

Now Using It In Momentum Equation $P = (N+M) \cdot V$

Using It For Force Relation We Have

$$F = \frac{d}{dt}(N+M) \cdot V \quad -(7)$$

$$F = N \frac{dV}{dt} + M \frac{dV}{dt}$$

This Gives

$$F = N \cdot a + M \cdot a$$

For $N = M^2$ This Condition Satisfies The Relativistic Condition $E^2 = P^2 C^2 + M^2 C^4$

$$F = M^2 \cdot a + M \cdot a$$

Neglecting The Higher Power We Have

$$F = M \cdot a$$

This Explains The Second Law Also Holds It's Form Even After Applying Non-Interactive Mechanics
Now According To Non-Interactive Mechanics

$$N + M = \pm \sqrt{N^2 + 2NM + (M)^2}$$

Now Assuming Two Forces F1 And F2 Equals To Each Other

$$F1 = F2$$

Where F1 Is $\frac{d}{dt}(N+M) \cdot V$ And F2 Is $\frac{d}{dt} \pm \sqrt{N^2 + 2NM + (M)^2} \cdot (V)$

Applying Equations We Have

$$\frac{d}{dt}(N+M) \cdot V = \frac{d}{dt} \pm \sqrt{N^2 + 2NM + (M)^2} \cdot (V)$$

For N=0 When Non-Intractable Particle Is Not Present In Matter Field Above Equation Transform AS

$$\frac{d(M \cdot V)}{dt} = \frac{d}{dt} \pm (M \cdot V)$$

For +Ve Value We Have

$$\frac{d(M \cdot V)}{dt} = \frac{d(M \cdot V)}{dt}$$

Net Force F= F1 + F2 = 0 This Is Sir Newton's First Laws Of Motion Which Is Same As Eq.-(6)

For -Ve Value We Have

$$\begin{aligned} \frac{d(M \cdot V)}{dt} &= - \frac{d(M \cdot V)}{dt} \\ \frac{dt}{d(P1)} &= - \frac{dt}{d(P2)} \\ F1 &= - F2 \end{aligned}$$

'To Every Action There Is Always Equal and Opposite Reaction'

By Using Rules of Gravitational Law of Non-Interactive Mechanics and Rules of Non-Interactive Mechanics Sir Newton's The Third Law Of Motion.

This Explains Few Things.

1. Non-Interactive Mechanics And Gravitational Law Of Non-Intractable Particles Follow Newtonian Mechanics As We Used All Four Equations Of Non-Interactive Mechanics.
 - a. $N+M=0$
 - b. $N = -M$
 - c. $N+M = \pm \sqrt{N^2 + 2NM + (M)^2}$
 - d. $N = -M \pm \sqrt{N^2 + 2NM + (M)^2}$
2. As By Above Study We Can All Three Laws Of Motion Are Connected To Each Other.

Non-Interactive Particles Are The First Force And Work Of Each Action

Non-Interactive Particles Are The First Force Of Each Action

According To Equation-(2)

$$F = G \frac{N}{(r)^2}$$

For Geodesic Unit $G = 1$ and for the Distance $r = 1$

$$F = N \quad -(8)$$

And Any Action In Classical Mechanics Starts When Matter Interaction Occurs And Non-Intractable Particles Have The Quality To Disintegrate Matter $N = -M$ Applying This In Above Equation Gives

$$F = - M$$

This Describe According To Non-Interactive Mechanics And Newtonian Mechanics Non-Intractable Particles Starts The First Interaction On Material Ground And This Emitted Matter Generate Force On The Physical Ground.

Non-Interactive Particles Does The First Work Of Each Action

According To Equation - (2)

$$F = G \frac{N}{(r)^2}$$

Applying Equation $N = -M \pm \sqrt{N^2 + 2NM + (M)^2}$ In Above Equation

$$F = G \frac{-M \pm \sqrt{N^2 + 2NM + (M)^2}}{(r)^2} \quad -(9)$$

For Condition $N = 0$ In Equation -(8) We Have

$$F = G \frac{-M \pm \sqrt{(M)^2}}{(r)^2}$$

$$F = G \frac{-M \pm M}{(r)^2}$$

For +Ve Value This Gives $F = 0$

For Geodesic Unit $G = 1$ And Taking -Ve Value

$$F = \frac{-M - M}{(r)^2}$$

$$F = \frac{2(-M)}{(r)^2}$$

For n Number Of System Above Equation Is

$$F = \frac{2 \cdot n(-M)}{(r)^{2n}} \quad \text{Where } n = 1, 2, 3, \dots$$

Taking $N = -M$

$$F = \frac{2 \cdot n(N)}{(r)^{2n}}$$

Taking $n = 1/2$ On Numerator And Denominator We Have

$$F = \frac{2 \cdot \frac{1}{2}(N)}{(r)^{\frac{2 \cdot 1}{2}}} \quad \text{This Gives}$$

$$F \cdot r = N$$

$$W = N \quad -(10)$$

This Describes Non-Intractable Particles Convert The First Force In The Material Field.

And The Work Done By Material Particles Is Convert Into Their Kinetic Energy Then Eq.-(9) Is

$$K.E = N \quad -(11)$$

IV. SPECIAL CASES

a. $F = N \quad -(8)$

$$W = N \quad -(10)$$

Equating Equation -(8) And Equation -(10)

$$W = F$$

There Are Two Conditions

i. $F \cdot S = F$

$$S = 1$$

This Describes Starting Any Action on Material Ground The Minimum Distance Between Two Bodies

Should Be 1 Unit, In Quantum Mechanics We Have Zero Point Energy Of Linear Harmonic Oscillator $E = \frac{1}{2} h\nu$, But There Are Some Phenomena In Quantum Mechanics Which Can't Be Performed With Matter On Physical Ground Such As Quantum Teleportation We Can't Dematerialize Any Object And Regain It On Same Material Form If The Distance Between Them Is Lesser Than 1 Unit.

ii. $W = F$

Now Integrating R.H.S W.R.T To s We Have

$$W = \int F \cdot ds \quad \text{This Gives}$$

$$W = F \cdot s$$

This Is Same As Classical Mechanics.

b. $W = N \quad -(10)$

$$K.E = N \quad -(11)$$

Equating Equation -(10) And Equation -(11)

$$W = K.E$$

Now If K.E Of Is From Initial(i) To Final(f)

$$W = K.E(f) - K.E(i)$$

$$W = \Delta K.E$$

This Is Work-Energy Theorem.

c. Existence Of Non-Intractable Particles In Space And Solar System

$$F = N \quad \text{---(8)}$$

$$K.E = N \quad \text{---(11)}$$

Equating Equation –(8) And Equation –(11)

$$F = K.E$$

Applying $F = m a$ And $K.E = \frac{1}{2} m v^2$

$m a = \frac{1}{2} m v^2$ If The Mass m Is Equal Of Both Sides Then

$$a = \frac{1}{2} v^2$$

$$v = \sqrt{2a}$$

For A Special Case When $a = g$ And $R = 1$ Above Equation Is

$$V = \sqrt{2gR}$$

This Is The Relation Of Escape Velocity.

If $g = 9.8 \text{ m / sec}^2$ $R = R_e$ (Radius Of Earth) Then

$$V = 11.2 \text{ Km/sec}$$

This Is The Escape Velocity .

So We Have The Result That Non-Intractable Particles Have The Ability Of Leaving The Earth's Atmosphere And These Particles Have Their Existence In Solar System And Even Beyond Than That.

This Explains By Applying Various Application Of Non-Interactive Mechanics We Can Get The Various Phenomena And Application Of Classical Mechanics In Daily Life At Both Microscopic And Macroscopic Level. By Using Quantum Mechanics We Can Only Get Result On Microscopic Level But By Non-Interactive Mechanics We Can Get Results On Both At Microscopic Level And Macroscopic Level. As In Non-Interactive Mechanics By Using The Laws Of Non-Interactive Mechanics We Established Various Condition Like i. $E = h\nu$ ii. $E = \frac{1}{2} h\nu$ iii. $E = m (C)^2$ iv. $(E)^2 = P^2 \cdot C^2 + m^2 \cdot C^4$ v. Particles Faster Than Light Also Approximation of Velocity Of Light.

This Explains The Non-Interactive Mechanics Follows Fundamental Rules Of Quantum Mechanics , Classical Mechanics , Relativistic Mechanics . And Shows More Need To Understand The Nature. This Proves Non-Interactive Mechanics Holds The Laws Of Quantum Mechanics , Classical Mechanics , Relativistic Mechanics .

Why Graviton Should Be A Non-Interactive Particle

According To Equation - (2) This Is The Law Of Gravitation For Non-Intractable Particles

$$F = G \frac{N}{(r)^2}$$

According To This Attraction Or Repulsion Force Between Two Bodies Is Proportional To The Non-Intractable Particle Present Between Them And Is Inversely Proportional To The Square Of The Distance Between Them.

According To Non-Interactive Particles Have The Properties To Emit Matter By The Equation $N = -M$, So The Field Quanta which Is Present Between Two Mass Bodies Is The Field Quanta Of Gravitation, For $N = -M$ Above Equation –(2) Is

$$F = G \frac{-M}{(r)^2}$$

So We Can See That The Field Quanta Of Gravitational Field Has The Property To Emit Matter, This Field Quanta Is Graviton, With Spin 2 , It Emits Matter To Repulse Or Attraction Bodies

- i. In Case Of Repulsion, The Matter Emitting Process Continues Till The Point Where The Effect Of Disintegrated Matter On Two Mass Bodies Becomes $-M = 0$ And By This $N=0$.
- ii. In Case Of Attraction, The Matter Emitting Process Continues Till The Point Where The Distance Between Two Bodies Becomes Zero And Disintegrated Matter $-M = 0$ And By This $N=0$.

This Explain In Both The Conditions Matter Emission Process Is Followed By Field Quanta Of Gravitational Field Till The Point $-M = 0$ And Non-Intractable Particle Has The Property To Disintegrate Matter So Graviton Should Be A Non-Intractable Particle.

Why Any Mass State Can't Be In Rest In Universe According To Classical And Non-Interactive Mechanics

According To Equation - (2) This Is The Law Of Gravitation For Non-Intractable Particles

$$F = G \frac{N}{(r)^2}$$

We Have To Study Some Points About It –

- i. This Equation Is Derived From Gravitational Formula Of Sir Newton And From Non-Interactive Mechanics.
- ii. This Equation Satisfy Sir Newton's Laws Of Motion.

- iii. According To This Relation A Non-Intractable Particle Is Present Between Two Mass Bodies.
- iv. Non-interactive Particles Have The Property To Emit Matter.
- v. Due To This Emitted Matter ,Mass Bodies Interaction With Surrounding Is Always Happens And Due To This Interaction Mass Bodies Always Moving Even If They Are In Rest In Any Inertial Frame Of Reference.

The Free Movement Of Non-Intractable Particles In Universe-

If We Use A Cylindrical Rod And Slide It On A Plane Surface Then The Force Of Whole Process From Starting To The Point where The Moving Rod Stops It's Motion. The Applied Force Is Divided Into Three Parts-

- i. The Combined Non-Intractable Particle And Mass State Of Cylindrical Body Moving, with Velocity Following Negative And Positive Curve Geometries With Respect To Time.F1
- ii. The Change Of Momentum With Respect To Time.F2
- iii. The Last Stage Is Stopping This Stage Is Very Important Because Every Cylindrical Body Repulse Because Nature Holds The Neutral Cell According To Non-Interactive Mechanics.
F3

The Combined Relation Of Net Force Of Free Movement Of Non-Intractable Particles In Universe Is

$$F_{net} = F1 + F2 + F3$$

$$F_{net} = \frac{d(N+M)(gie^{\alpha+\beta Ei} - e^{-\alpha-\beta Ei})}{dt} + \frac{dP}{dt} + \frac{d(N+M)(gie^{-\alpha-\beta Ei})}{dt}$$

Now We Check The Above Relation

$$\frac{d(N+M)(gie^{\alpha+\beta Ei} + (gi-1)e^{-\alpha-\beta Ei})}{dt} + \frac{dP}{dt}$$

$$\frac{d(N+M)}{dt} \cdot \frac{gi e^{2(\alpha+\beta Ei)} + (gi-1)}{e^{\alpha+\beta Ei}} + \frac{dP}{dt}$$

Taking $e^\alpha = \text{Constant}$

$$\frac{d(N+M)}{dt} \cdot \frac{gi e^{2\beta Ei} + (gi-1)}{e^{\beta Ei}} + \frac{dP}{dt}$$

$$\frac{d(N+M)}{dt} \cdot \frac{gi (1+2\beta Ei) + (gi-1)}{(1+\beta Ei)} + \frac{dP}{dt}$$

$$\frac{d(N+M)}{dt} \cdot \frac{gi+2gi\beta Ei+gi-1}{(1+\beta Ei)} + \frac{dP}{dt}$$

$$\frac{d(N+M)}{dt} \cdot \frac{2gi+2gi\beta Ei-1}{(1+\beta Ei)} + \frac{dP}{dt}$$

$$\frac{d(N+M)}{dt} \cdot \frac{2gi(1+\beta Ei)-1}{(1+\beta Ei)} + \frac{dP}{dt}$$

$$\frac{d(N+M)}{dt} \cdot (2gi - \frac{1}{(1+\beta Ei)}) + \frac{dP}{dt}$$

For $1 + \beta Ei = \beta Ei$

$$\frac{d(N+M)}{dt} \cdot (2gi - \frac{1}{(\beta Ei)}) + \frac{dP}{dt}$$

For $\beta = 1/kT$ Where k Is Boltzmann Constant And $E = m C^2$

$$\frac{d(N+M)}{dt} \cdot (2gi - \frac{kT}{(m C^2)}) + \frac{dP}{dt}$$

Now If We Take Temperature Is Energy Between Two States

$$\frac{m C^2}{m C^2}$$

Then The $T = 2 m C^2$

$$\frac{d(N+M)}{dt} \cdot (2gi - \frac{k 2 m C^2}{(m C^2)}) + \frac{dP}{dt}$$

$$\frac{d(N+M)}{dt} \cdot (2gi - 2k) + \frac{dP}{dt}$$

$$\frac{d(N+M)}{dt} \cdot (2(gi - k)) + \frac{dP}{dt}$$

$$\frac{d(N+M)}{dt} \cdot (2(gi - k)) + \frac{dP}{dt}$$

Now Here The Boltzmann Constant Is Measured For The Size And Energy Level Of Cell For Non-Interactive Particle After Measuring We Can Ignore k

$$\frac{d(N+M)}{dt} \cdot 2gi + \frac{d(N+M) \cdot V}{dt}$$

$$(N+M) \frac{d}{dt} \cdot (2gi + V)$$

$$(N+M) \frac{dV}{dt}$$

For $\frac{dv}{dt} = a$

Fnet = (N+M). a

For N = 0

Fnet = M. a

This Is Sir Isaac Newton's Second Law Of Motion. So The Above Given Description Of Free Movement Of Non-Intractable Particles Is Shows Same Result As Classical Mechanics.

V. CONCLUSION

From Above Description We Reach To The Conclusions That Two Equal Mass Bodies Are Able To Generate A Non-Intractable Particle Between Them When The Distance Between Them Is Minimum 1(Unit). The Non-Intractable Particle Is Responsible For The Generation Of Gravitational Field In Universe. By The Use Of Gravitational Formula Of Non-Interactive Particles And Rules Of Non-Interactive Mechanics We Can Get Sir Newton Three Laws Of Motion.

Non-Intractable Particles Are The First Force Of Every Action , And Does The First Work In Starting Of Each Action. Non-Intractable Particle's Gravitation Formula Shows Some Fundamental Theorem Such As i. Works Force Relation ii. Work-Energy Theorem.

By Satisfying Escape Velocity Condition We Get The Conclusion That Non-Intractable Particles Have Their Existence Beyond Earth's Atmosphere And Their Existence In Solar System And Their Existence Even Beyond Then That.

Then We Observe That Graviton Should Be A Non-Intractable Particle Due To It's Matter Emitting Nature. Than We Observe The Free Movement Of Non-Intractable Particles is The Resultant Of Three Force And It Satisfies Sir Newton's Second Law Of Motion.

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