

COSMOLOGY: INFLATION OR RIPPLES THEORY

ALL THIS THEORIZING HAS RECEIVED A FURTHER BOOST OF SORTS FROM RECENT REPORTS OF RIPPLES IN A DIFFUSE RADIO GLOW IN THE SKY, THOUGHT TO BE THE REMAINS OF THE BIG BANG FIREBALL ITSELF. THESE RIPPLES ARE CONSISTENT WITH A POPULAR THEORY, KNOWN AS INFLATION, THAT THE UNIVERSE BRIEFLY SPEEDED ITS EXPANSION UNDER THE INFLUENCE OF A VIOLENT ANTIGRAVITATIONAL FORCE, WHEN IT WAS ONLY A FRACTION OF A FRACTION OF A NANOSECOND OLD. THOSE RIPPLES THUS PROVIDE A USEFUL CHECK ON THEORISTS' IMAGINATIONS. ANY THEORY OF COSMIC ORIGINS THAT DOES NOT EXPLAIN THIS PHENOMENON, COSMOLOGISTS AGREE, STANDS LITTLE CHANCE OF BEING RIGHT. (SEE APPENDIX XK NOT INCLUDED).

THE PASSAGE ABOVE, WHICH WAS TAKEN FROM THE INTERNET RANDOMLY, SHOWS THAT THERE WAS ANTI-GRAVITATIONAL FORCE DURING THE PROCESS OF THE EXPANSION IMMEDIATELY AFTER THE BIG BANG. HOW IS THIS EXPLAINED WITHIN THE NEW QUANTUM THEORY.

THIS EXPANSION OF MATTER IMPLIES A LOSS OF GRAVITY FROM EQUATION ABOVE. THIS LOSS OF GRAVITY NATURALLY WILL CAUSE ANTI-GRAVITATIONAL FORCE WHICH ACCORDING TO NEWTON'S LAW OF MOTION OF MATTER WILL GENERATE ACCELERATION OF THE BIG BANG. THIS EXPLAINS THE RIPPLE THEOREM IN THE INFLATION THEORY, WHICH IS EXPLAINED MATHEMATICALLY AS FOLLOWS:

LET US ASSUME THAT AT SOME TIME T1 AFTER THE BIG BANG, A BODY OF MASS M IN STATE J, IS IN MOTION FROM THE CENTRE OF THE DISTURBANCE. AFTER A TIME T2 THE BODY WOULD EXPAND TO STATE K.

ACCORDING TO NEWTON LAWS OF MOTION THE FORCE OF ATTRACTION ON THE MASS IN STATE J IS GIVEN AS:

$$F_J = MG_J \quad (1)$$

SIMILARILY IN STATE K WE HAVE

$$F_K = MG_K \quad (2)$$

WHERE F_J , F_K ARE THE NEWTONIAN FORCES OF ATTRACTION ON THE MASS M IN STATE J AND K RESPECTIVELY.

WITHIN THAT TIME SPAN THE MASS EXPERIENCES A FALL OF GRAVITATIONAL ATTRACTION OF:

$$F_K - F_J = MG_K - MG_J$$

$$=M(G_K-G_J)$$

$$=M(G/P_K(x)- G/P_J(x))$$

$$=MG(1/P_K(x)- 1/P_J(x))$$

FROM OUR AXIOMS 4E ABOVE $K>J$ IMPLIES THAT:

$$P_K(x)>P_J(x)$$

THEREFORE THE TERM IS NEGATIVE.

$$(1/P_K(x)- 1/P_J(x))$$

THAT IN TURN IMPLIES THAT THE NET FORCE F_K-F_J IS NEGATIVE.

$$F_K-F_J<0$$

HENCE

$$F_K<F_J$$



THIS SIMPLY MEANS THAT THE FORCE OF ATTRACTION TOWARDS THE CENTRE OF THE BIG BANG IS NEGATIVE OR REDUCING AND THIS REDUCTION IS WHAT IS SEEN AS ACCELERATION, IN THE DIRECTION AWAY FROM THE SINGULARITY, IMMEDIATELY AFTER THE BIG BANG AND IS OBSERVED IN THE RIPPLES OR INFLATION THEORY. THIS NEW QUANTUM THEORY MEETS COSMOLOGY AS WELL.

10:1 NEGATIVE GRAVITY IN AN EXPANDING MACROSYSTEM.

ACCORDING TO NEWTON LAWS OF MOTION THE FORCE OF ATTRACTION ON THE MASS IN STATE J IS GIVEN AS.

$$F_J=MG_J \quad \text{----- (1)}$$

SIMILARILY IN STATE K WE HAVE

$$F_K=MG_K \quad \text{----- (2)}$$

WHERE F_J , F_K ARE THE NEWTONIAN FORCES OF ATTRACTION ON THE MASS M IN STATE J AND K RESPECTIVELY.

WITHIN THAT TIME SPAN THE MASS EXPERIENCES A FALL OF GRAVITATIONAL ATTRACTION OF

$$F_K - F_J = MG_K - MG_J$$

$$= M(G_K - G_J)$$

$$= M(G/P_K(x) - G/P_J(x))$$

$$= MG(1/P_K(x) - 1/P_J(x))$$

FROM OUR AXIOMS 4E ABOVE $K > J$ IMPLIES THAT

$$P_K(x) > P_J(x)$$

THEREFORE THE TERM

$$(1/P_K(x) - 1/P_J(x))$$

IS NEGATIVE.

THAT IN TURN IMPLIES THAT THE NET FORCE $F_K - F_J$ IS NEGATIVE.

$$F_K - F_J < 0$$

HENCE

$$F_K < F_J$$

THIS SIMPLY MEANS THAT THE FORCE OF ATTRACTION IN ANY EXPANDING MACROSYSTEM IS NEGATIVE OR REDUCING AND THIS REDUCTION IS SEEN AS ACCELERATION, IN THE DIRECTION AWAY FROM THE SINGULARITY. THIS WOULD NORMALLY CAUSE RIPPLES OR INFLATION THEORY. THIS NEW QUANTUM THEORY MEETS COSMOLOGY AS WELL.

10:2 POSITIVE GRAVITY IN A CONTRACTING MACRO SYSTEM.

ACCORDING TO NEWTON LAWS OF MOTION THE FORCE OF ATTRACTION ON THE MASS IN STATE J IS GIVEN AS:

$$F_J = MG_J \quad (1)$$

SIMILARLY IN STATE K WE HAVE

$$F_K = MG_K \quad (2)$$

WHERE F_J , F_K ARE THE NEWTONIAN FORCES OF ATTRACTION ON THE MASS M IN STATE J AND K RESPECTIVELY.

WITHIN THAT TIME SPAN THE MASS EXPERIENCES A FALL OF GRAVITATIONAL ATTRACTION OF,

$$F_K - F_J = MG_K - MG_J$$

$$= M(G_K - G_J)$$

$$= M(G/P_K(x) - G/P_J(x))$$

$$= MG(1/P_K(x) - 1/P_J(x))$$

FROM OUR AXIOMS 4E ABOVE $K > J$ IMPLIES THAT ,

$$P_K(x) > P_J(x)$$

THEREFORE THE TERM:

$$(1/P_K(x) - 1/P_J(x))$$

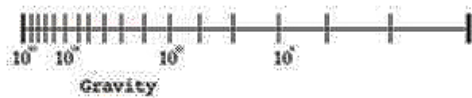
IS POSITIVE.

THAT IN TURN IMPLIES THAT THE NET FORCE $F_K - F_J$ IS POSITIVE.

$$F_K - F_J > 0$$

HENCE

$$F_K > F_J$$



THIS SIMPLY MEANS THAT THE GRAVITATIONAL FORCE IN ANY CONTRACTING MACRO SYSTEM IS POSITIVE. THIS WOULD CAUSE ACCELERATION, IN THE DIRECTION TOWARDS THE CENTRE, OR THE SINGULARITY. THIS NEW QUANTUM THEORY MEETS COSMOLOGY AS WELL.

COOLING OF GRAVITY

12.1

BACKGROUND ARGUMENTS

GRAVITY TRAVELS FASTER THAN THE SPEED OF LIGHT.

NEWTONIAN GRAVITY EXPLICITLY ASSUMES THAT GRAVITY PROPAGATES WITH THE SPEED OF LIGHT.

THE IMPOSSIBILITY OF FASTER-THAN-LIGHT PROPAGATION IN FORWARD TIME RESTS ON AN EXPERIMENTALLY UNVERIFIED ASPECT OF THE THEORY OF RELATIVITY.

GRAVITY FORCE IS ASSUMED FINITE.

GRAVITONS FORM A CLOUD AROUND THE BODY. PERHAPS ARE PSYCHIC ENERGY.

AS DISTANCE INCREASES DENSITY OF GRAVITON CLOUD GOES DOWN, SO THERE IS GRAVITATIONAL ATTRACTION.

NEWTON'S LAW

$$E = G \text{MASS1} * \text{MASS2} / (\text{R}^2)$$

(G IS GRAVITATIONAL CONSTANT, WHICH HAS THE SAME VALUE THROUGHOUT OUR UNIVERSE.)

$$G^2 = (\text{M2}/\text{M1}) * (\text{V1}/\text{V2})^2$$

GRAVITY VARIES WITH DENSITY AND NOT A CONSTANT.

BLACK HOLE GOES TO INFINITY AFTER COLLAPSE.

EINSTEIN'S QUANTUM GRAVITY IN COSMIC EXPANSION

IT HAS BEEN SAID BEFORE THAT, IN CLASSICAL PHYSICS, AS A BODY IS CRUSHED INTO A SMALLER AND SMALLER VOLUME, THE GRAVITATIONAL ATTRACTION INCREASES, AND HENCE THE ESCAPE VELOCITY GETS BIGGER. THIS ACTION OF GRAVITY INCREASING AS A MASS IS CRUSHED IS EXPLAINED IN THE NEW QUANTUM THEORY AS FOLLOWS

IT IS ONCE MORE ASSUMED HERE THAT GRAVITY INDEED IS CAUSED BY GRAVITONS WHICH CAN BE EXPRESSED IN A WAVE FORM. FOR NOW IT IS ALSO ASSUMED THAT THE WAVE FUNCTION WHICH DESCRIBES THE PARTICLE CAN ALSO DESCRIBE THE GRAVITON. (A MORE APPROPRIATE WAVE DESCRIPTION WILL BE OFFERED IN ANOTHER PAPER).

FROM AXIOM 3E ABOVE THE GRAVITY G_N , IS DEFINED AS

$$G_N = G/P_N(X)$$

WHERE G IS A CONSTANT.

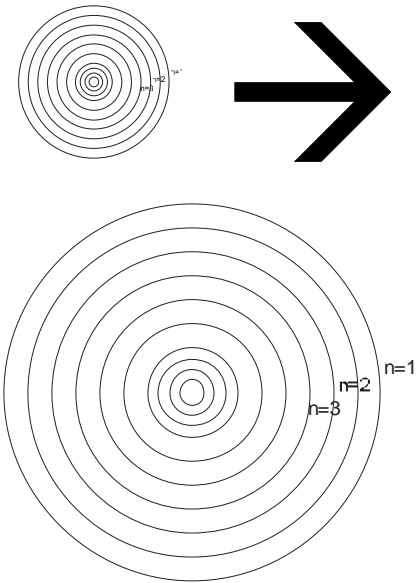
AT THE BIG BANG , WHEN THE QUANTUM FLUCTUATION CAUSE THE SINGULARITY TO GIVE ITS ENERGY IN THE FORM OF HEAT OR WHATEVER THE MATTER HAS TO EXPAND TO BALANCE THE EQUATION

$$E_N = K/P(N)$$

FROM AXIOM 4EY AS N GOES TO INFINITY $P_N(X)$ GOES TO INFINITY, WHICH MAKES GRAVITY G_N GO TO ZERO.

HENCE IN A BIG BANG GRAVITY DECREASES FROM INFINITY TO ZERO, WHICH ONCE MORE AGREES WITH CLASSICAL PHYSICS. THIS ALSO AGREES WITH THE COSMOLOGICAL TABLE 2 BELOW.

GRAVITY DURING EXPANSION



$$F \rightarrow \infty$$

$$G \rightarrow \infty$$

$$E \rightarrow \infty$$

$$T \rightarrow \square$$

$$f < \infty$$

$$g < \infty$$

$$e < \infty$$

$$t > 0$$

WHY THE UNIVERSE EXPANDS AND ACCELERATES.

12.3

AS THE UNIVERSE EXPANDS GRAVITY DECREASES. AT THE INITIAL STAGES THE FALL OF GRAVITY IS VERY HUGE CAUSING INFLATION AS HAS BEEN EXPLAINED. IN LATER STAGES THIS GRAVITY CONTINUES TO ACT. FOR EXAMPLE THE FORCE OF GRAVITY AT POINT A, AND B ARE DENOTED F_A , AND F_B . IT HAS BEEN SHOW PREVIOUSLY THAT $F_A > F_B$.

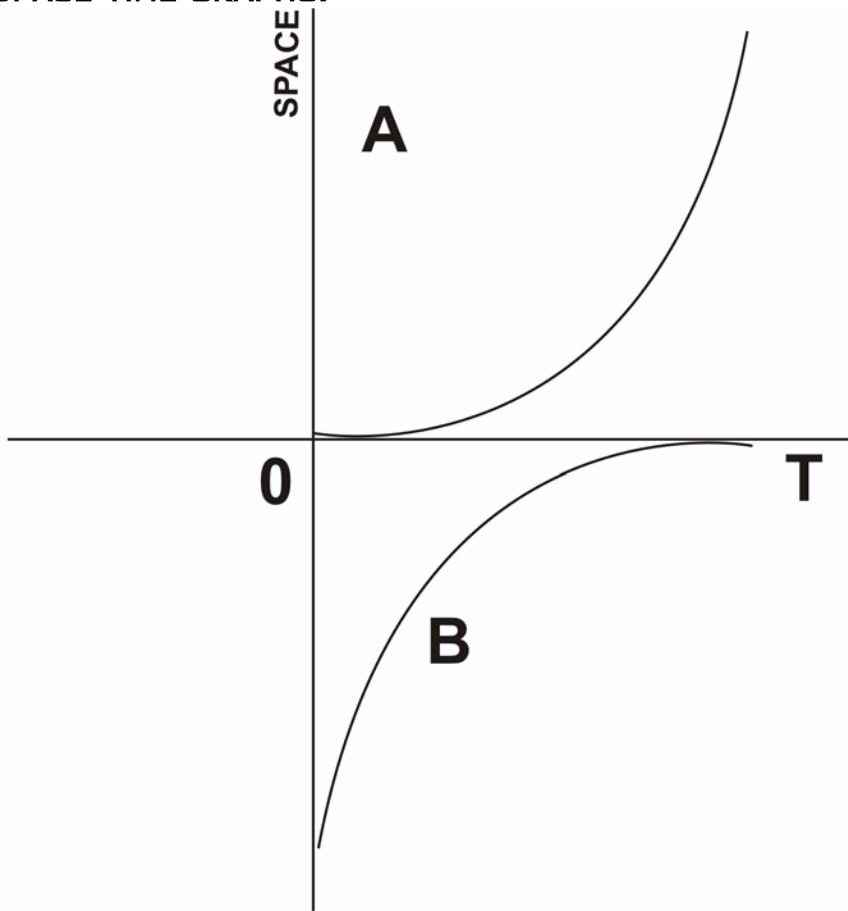
THE FORCE OF GRAVITY ACTING ON THE UNIVERSE IS GIVEN AS:

$$F_B - F_A \quad (1).$$

SINCE $F_A > F_B$

$$F_B - F_A < 0 \quad (2)$$

SPACE TIME GRAPHS.



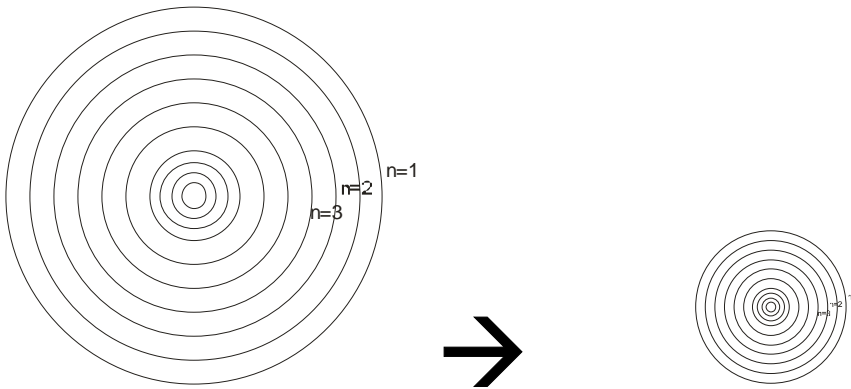
LINE A REPRESENTS SPACE TIME.

LINE B REPRESENTS VARIATION OF GRAVITY WITH TIME.

HENCE GRAVITY ACTS AS REPULSIVE RATHER THAN ATTRACTIVE. HENCE AFTER ANY QUANTUM FLUCTUATION GRAVITY IS FELT AS NEGATIVE HENCE THE UNIVERSE IS CONSTANTLY UNDER FORCE OF GRAVITY WHICH IS REPULSIVE. THAT IS WHY THE UNIVERSE EXPANDS AND ALSO ACCELERATES.

UNIVERSE WILL CRUNCH

CONTRACTION OF THE UNIVERSE



$$f < \infty$$

$$g < \infty$$

$$e < \infty$$

$$t > 0$$

$$F \rightarrow \infty$$

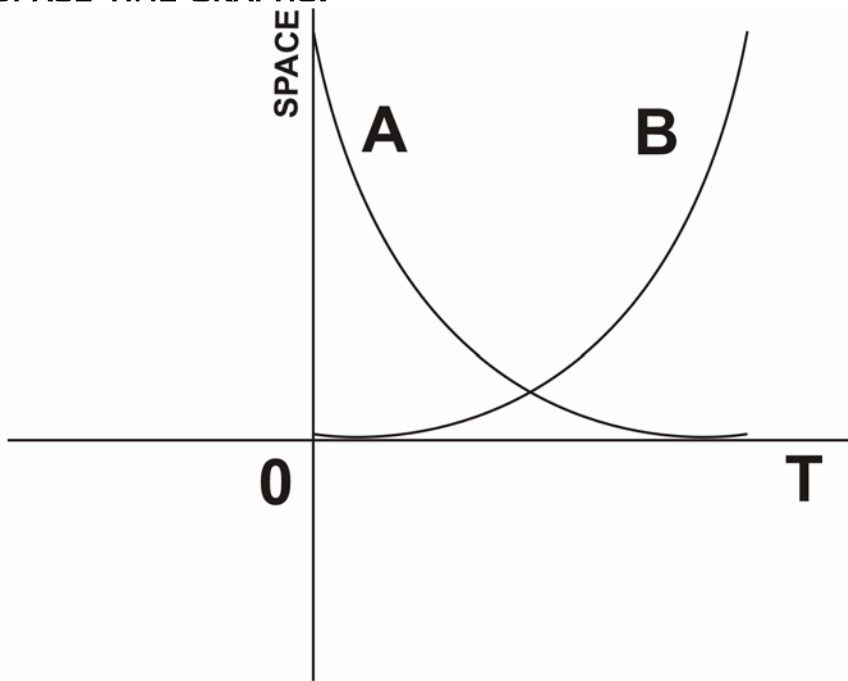
$$G \rightarrow \infty$$

$$E \rightarrow \infty$$

$$T \rightarrow \square$$

WHEN THE UNIVERSE EXPANDS TO THE POINT WHERE GRAVITY BECOMES ZERO AGAIN THEN GRAVITY WILL NO MORE BE REPULSIVE BUT ATTRACTIVE AND HENCE THE UNIVERSE WILL THROB OR BEGIN TO SHRINK UNDER THIS GRAVITY AGAIN.

SPACE TIME GRAPHS.



LINE A REPRESENTS GRAVITY, ENERGY, FREQUENCY, OR DENSITY.
LINE B REPRESENTS SPACE TIME.

WHEN THE SHRINKING REACHES SMALL VALUES AGAIN THE GRAVITY WILL APPROACH INFINITY IN WHICH THE UNIVERSE WILL CRUNCH.

OSCILLATORY UNIVERSE

ONCE THE UNIVERSE HAS CRUNCHED THE QUANTUM FLUCTUATION WILL MAKE IT START THE CYCLE AGAIN.