

# COUNTLESS WAVES OR PARTICLES

13:1

SOLUTION OF SCHRODINGER'S EQUATION GIVES A LARGE NUMBER OF WAVES WHICH LOOKED COLLECTIVELY GIVE US INFORMATION ABOUT THE UNIVERSE AND MATTER IN GENERAL.

THIS CAN BE WRITTEN AS :

$$\Phi = \sum_N \sum_J C_{NJ} Z_{NJ} \quad 1$$

WHERE  $Z_{NJ}$  IS THE WAVE FUNCTION CORRESPONDING TO SOME ENERGY  $E_{NJ}$  AND  $C_{NJ}$  ARE CONSTANTS, AND  $\Phi$  IS THE SUPERIMPOSITION OF THE WAVE FUNCTIONS. WHERE

$$N \rightarrow 1, 2, 3, 4, 5, \dots, \infty$$

$$J \rightarrow 1, 2, 3, 4, 5, \dots, \infty$$

LET  $E_M$  REPRESENT THE TOTAL ENERGY IN EQUATION 1

AT THE BIG BANG THE MASS WOULD BREAK INTO PARTICLES OF VARIOUS WAVE FUNCTIONS AND ENERGIES. SINCE THE ENERGY IS INFINITE WE REQUIRE THE LAWS OF INFINITY IN ORDER TO DETERMINE THE BEHAVIOR OF IT DURING BIG BANGS.

ANY THING ADDED TO INFINITY YIELDS INFINITY.

$$\infty = \infty + A$$

INFINITY CAN NOT BREAK TO BECOME FINITE. HENCE,

$$E_\infty = E_\infty + A$$

WHERE  $A$  IS SOME CONSTANT, AND  $E_\infty$  STANDS FOR INFINITE ENERGY.

THIS CAN BE WRITTEN AS:

$$E_\infty = E_\infty + A$$

$$E_\infty = E_\infty + \sum_N \sum_J D_{NJ} E_{NJ}$$

WHERE  $D_{NJ}$  IS A CONSTANT

THIS MEANS THAT INFINITE ENERGY AT THE BIG BANG BREAKS INTO INFINITE ENERGY AND FINITE ENERGIES. THAT IS WE GET SCATTERING OF WAVES SOME WITH INFINITE ENERGIES AND SOME WITH FINITE ENERGIES.

THE WAVE FUNCTIONS CORRESPONDING TO THIS IS:

$$\Phi_{k=N} = \sum_{j} A_{KNj} U_{KNj} + \sum_{j} B_{KNj} V_{KNj} + \sum_{j} C_{KNj} Z_{KNj}$$

$$= \sum_{j} S_{KN} + \sum_{j} Q_{KN} + \sum_{j} M_{KN}$$

WHERE

$$S_{KN} = \sum_{j} A_{KNj} U_{KNj}$$

REPRESENTS WAVES  $U_{KNj}$  AT INFINITE ENERGIES  $E_{KNj}$ , AND WHICH ARE EITHER SINGULARITIES OR WIMP (SEE TABLE BELOW).

$$Q_{KN} = \sum_{j} B_{KNj} V_{KNj}$$

REPRESENTS WAVES  $V_{KNj}$  AT INFINITE ENERGIES  $E_{KNj}$ , AND WHICH ARE NOT SINGULARITIES FOR THEIR MASSES ARE NOT CONCENTRATED IN THE CENTRE.

THE TERM

$$M_{KN} \text{ OR } \sum_{j} C_{KNj} Z_{KNj}$$

MAY REPRESENT A COSMIC STRING OR GALAXY, STAR, HEAVY ELEMENT (SEE TABLE) IN A GIVEN UNIVERSE  $K$ , WHILE THE TERM:

$$S_{KN} \text{ OR } \sum_{j} A_{KNj} U_{KNj}$$

MAY REPRESENT A BUBBLE OR COSMIC VOLCANO. IT WILL BE EXPLAINED FURTHER BELOW.

WHERE THE FIRST SUMMATION OF  $U_{KNj}$ , OR  $V_{KNj}$  ARE WAVE FUNCTIONS WHICH HAVE INFINITE ENERGIES, WHILE  $Z_{KNj}$  ARE WAVE FUNCTIONS WITH FINITE ENERGIES.

WHERE  $U_{KNj}$ , OR  $V_{KNj}$ , OR  $Z_{KNj}$  MAY REPRESENT THE FUNDAMENTAL PARTICLES LEPTONS, QUARKS, BOSONS ETC.

SO IN A GIVEN UNIVERSE WE HAVE A NUMBER OF GALACTIC WAVES AND COSMIC VOLCANIC WAVES. THE COSMIC VOLCANO

$S_{KN}$  OR  $J \sum A_{KN} U_{KN}$

MAY FURTHER ERUPT, OR MAY EXPLODE INTO ANOTHER BIG BAG AND THE PROCESS STARTS AGAIN, GIVING  $\Phi_{K+1}$  AS AN ENDLESS CHAIN REACTIONS  $K=1, 2, 3, \dots, P$ .

HOWEVER THE TOTAL MATTER IN EXPLOSION  $\Phi_{K+1}$  IS LESS THAN OR EQUAL TO THE TOTAL MATTER IN  $\Phi_K$

## EXTENSION OF CREATION OF MATTER

14.1

IT IS TO BE RECALLED FROM THE PREVIOUS CHAPTER THAT:

$$\Phi_K = N \sum J \sum A_{KN} U_{KN} + N \sum J \sum B_{KN} V_{KN} + N \sum J \sum C_{KN} Z_{KN}$$

THIS CAN FURTHER BE SEEN AS

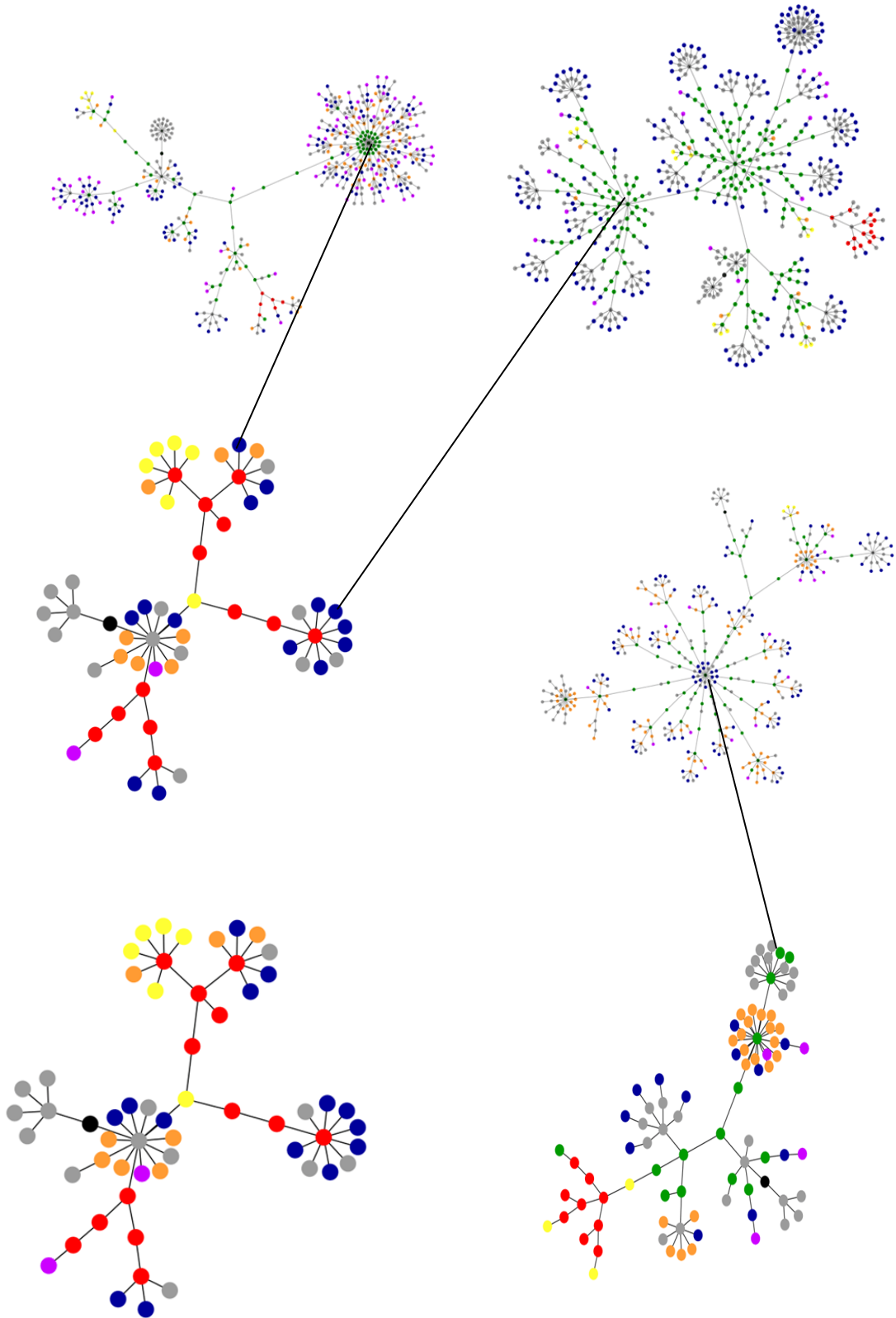
$$\begin{aligned} \Phi_K = & N \sum S_{KN} + N \sum Q_{KN} + N \sum M_{KN} + \\ & N \sum MA_{KN} + N \sum A_{KN} + N \sum SU_{KN} + N \sum B_{KN} + N \sum L_{KN} + N \sum \\ & L_{KN} + N \sum P_{KN} + N \sum MO_{KN} + N \sum CD_{KN} + N \sum AG_{KN} + \\ & N \sum F_{KN} + N \sum AM_{KN} + N \sum FE_{KN} + N \sum FU_{KN} + N \sum P_{KN} \\ & + N \sum MA_{KN} + N \sum PL_{KN} + N \sum RE_{KN} \end{aligned}$$

THE FUNCTIONS ARE DEFINED AS IN THE TABLE BELOW.

<b>CREATION</b>	<b>WAVES</b>	<b>TIME</b>
MACROSYSTEM	$N\sum$ MAKN	
ATOMS	$N\sum$ AKN	300000YRS
GALAXIES	$N\sum$ GKN	2 BILLION YRS
STARS	$N\sum$ STKN	3 BILLION YRS
SUPERNOVA	$N\sum$ SUKN	3 BILLION YRS
BACTERIA	$N\sum$ BKN	1 1.5 BILLION YRS
LIFE	$N\sum$ LKN	1 1 BILLION YRS
EARTH	$N\sum$ EKN	10.3 BILLION YRS
PLANETS	$N\sum$ PKN	10.3 BILLION YRS
MOLECULES	$N\sum$ MOKN	4 BILLION YRS
CONTINENTAL DRIFT	$N\sum$ CDKN	
ANIMAL GROUP	$N\sum$ AGKN	
FISH	$N\sum$ FKN	1 4.5 BILLION YRS
AMPHIBIANS	$N\sum$ AMKN	1 4.6 BILLION YRS
FERN	$N\sum$ FEKN	1 4.7 BILLION YRS
FUTURES	$N\sum$ FUKN	1 5 BILLION YRS
PEOPLE	$N\sum$ PKN	1 4.9 BILLION YRS
MAMALS	$N\sum$ MAKN	1 4.8 BILLION YRS
PLANTS	$N\sum$ PLKN	1 4.8 BILLION YRS

# SERIES OF BIG BANG EXPLOSIONS

13.2



## CREATION OF NEW MATTER

14:1

IT IS TO BE RECALLED FROM THE PREVIOUS CHAPTER THAT:

$$\begin{aligned} \Phi_k &= N \sum_j A_{KNJ} U_{KNJ} + N \sum_j B_{KNJ} V_{KNJ} + N \sum_j C_{KNJ} Z_{KNJ} \\ &= N \sum S_{KN} + N \sum Q_{KN} + N \sum M_{KN} \end{aligned}$$

THAT SOME FLUCTUATIONS CAN OCCUR WHICH MAKE THESE TINY BLACK HOLES EXPLODE LIKE BIG BANG. THEIR ORIGINAL ENERGIES CAN BREAK UP, GIVING OFF THE

$$M_{KN} = \sum_j C_{KNJ} Z_{KNJ}$$

AND TRAVERSE THROUGH SPACE AND CAN BECOME VISIBLE MATTER FOR UNIVERSES BELOW THAT OF K, AND THIS IS THE KIND OF MATTER WE PICK UP AT SOME POINTS IN OUR UNIVERSE.

WHENEVER THERE IS QUANTUM FLUCTUATION AND A BIG BANG TAKES PLACE IN A UNIVERSE K, FOR EXAMPLE, THE WAVES WITH FINITE ENERGIES

$$N \sum_j C_{KNJ} Z_{KNJ}$$

APPEAR AS MATTER IN UNIVERSES K-1, K-2, ..... 0. BY THIS NATURE MAINTAINS BALANCE OF MATTER IN THE WORLD LEST THERE SHOULD BE CLOSURE OF THIS UNIVERSE.

THE PARTICLES OF MATTER IN UNIVERSE K ARE VERY TINY AND OF LESS MASS COMPARED TO PARTICLES OF UNIVERSE K-1, THIS EXPLAINS WHY WE HAVE MASS LESS PARTICLES IN OUR UNIVERSE TODAY.

14:2



## QUASARS

15:1

### EXPLANATION OF QUASARS

BY DEFINITION A *QUASAR* IS AN ASTRONOMICAL ENTITY THAT EMITS INCREDIBLY HIGH LEVELS OF ELECTROMAGNETIC RADIATION (INCLUDING LIGHT). THE AMOUNT OF ENERGY EMITTED BY A QUASAR DWARFS EVEN THE BRIGHTEST STARS, MAKING THEM FAVORITES OF ASTROPHYSICISTS AND COSMOLOGISTS WHO WISH TO STUDY DISTANT SPACE.

WE RECALL FROM LAST CHAPTER THAT:

$$\Phi_{k=N} = \sum_j \sum_k A_{KNJ} U_{KNJ} + \sum_j \sum_k B_{KNJ} V_{KNJ} + \sum_j \sum_k C_{KNJ} Z_{KNJ}$$

$$= \sum_k S_{KN} + \sum_k Q_{KN} + \sum_k M_{KN}$$

THE TERM:

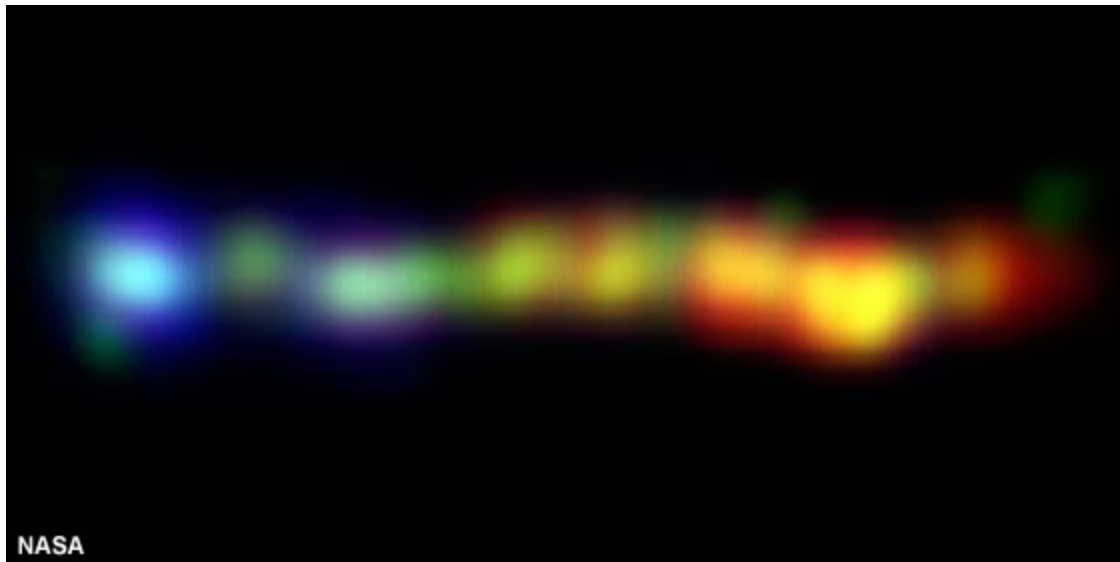
$$Q_{KN} \text{ OR } \sum_j B_{KNJ} V_{KNJ}$$

HAS INFINITE ENERGIES BUT THEIR MASS IS NOT CONCENTRATED IN THE CENTRE AS TO FORM A SINGULARITY. THEREFORE THEY EMIT ELECTROMAGNETIC WAVES WHICH ARE VISIBLE TO THE UNIVERSES

K, K-1, K-2, K-3.....

AND BELOW.

15: 2



# CLOSED AND OPEN UNIVERSES.

16:1

## CASE 1

A BIG BANG ARISING FROM A SINGULARITY WITH INITIAL FINITE MASS IS CLOSED.

## CASE 2

A BIG BANG ARISING FROM A SINGULARITY WITH INITIAL INFINITE MASS IS OPEN.

FROM OUR AXIOMS WE RECALL THAT SPATIAL DENSITY  $D_N$ , VARIES INVERSELY AS  $P_N(x)$ .

(1E)

WHERE  $P_N(x)$  GOES TO INFINITY AS  $N$  GOES TO INFINITY.

$$D_N = A V_M / P_N(x)$$

WHERE  $A$  IS A CONSTANT

SINCE  $V_M$  IS FINITE AND  $P_N(x) \rightarrow \infty$  AS  $N \rightarrow \infty$

IT IS OBVIOUS THAT  $D_N \rightarrow 0$  AS  $N \rightarrow \infty$

HENCE A UNIVERSE WITH FINITE MASS WOULD NORMALLY COME TO AN END.

IN CASE 2 IF  $V_M$  IS INFINITE THEN INVETERACY COMES IN AND THE UNIVERSE IS MORE LIKELY TO BE OPEN.

## PRIMORDIAL BLACK HOLES

SINCE EACH HAS FINITE MASS AND INFINITE ENERGY IT FOLLOWS THAT ANY SUBSEQUENT BIG BANG IS CLOSED FROM THE PREVIOUS AXIOM. WHEN A UNIVERSE OF  $N=1, 2, 3, \dots, P$  BECOMES CLOSED OR DIES A BLACK HOLE IS FORMED. HENCE FROM THE ORIGINAL BIG BANG A NUMBER OF BLACK HOLES ARE FORMED WHICH AGREES WITH STEPHEN HAWKINS QUEST.

# DARK MATTER

WE RECALL FROM LAST CHAPTER THAT:

$$\Phi_k = N \sum_j A_{KNJ} U_{KNJ} + N \sum_j B_{KNJ} V_{KNJ} + N \sum_j C_{KNJ} Z_{KNJ}$$

$$= N \sum S_{KN} + N \sum Q_{KN} + N \sum M_{KN}$$

THE TERM:

$$S_{KN} = \sum_j A_{KNJ} U_{KNJ}$$

OR WIMP HAS INFINITE ENERGY  $U_{KNJ}$  AND FORMS SINGULARITIES. THESE SINGULARITIES DO NOT EMIT NOR ABSORB LIGHT HENCE THEY FORM DARK MATTER. THE GRAVITATIONAL FORCE DUE TO THESE CLUSTERS OF DARK MATTER OR BLACK HOLES CAN BE FELT ON COSMOLOGICAL BODIES.

$S_{KN}$  AND  $E_{KN}$  ARE BOTH DARK.

# COSMIC DNA

## COSMIC DNA

BODY IN UNIVERSE  $K$  IS MADE UP OF MATTER IN  $K$  AND CONSTANTLY BEING FED WITH OTHER MATTER FROM HIGHER UNIVERSES  $K+1, K+2, K+3, \dots, N$

LET  $T_{KM}$  REPRESENTS THE TOTAL MATTER IN A BODY  $M$  IN UNIVERSE  $K$ .

$$T_{KM} = M_{KM} + N \sum \delta S_{KN} + N \sum \delta Q_{KN} + N \sum \delta M_{KN}$$

WHERE

$$\delta S_{KN}, \delta Q_{KN}, \delta M_{KN}$$

IS THE OVERLAP OF THE MASS MKM WITH SKN, QKN, MKN  
RESPECTIVELY, THAT IS THE AMOUNT OF VIBRATION MKM RECEIVES  
FROM HIGHER UNIVERSES.

THIS IS KNOWN AS COSMIC DNA FOR EACH UNIVERSE BEHAVES  
ACCORDING TO HOW MUCH -INFLUENCE HE RECEIVES FROM HIGHER  
UNIVERSES..