

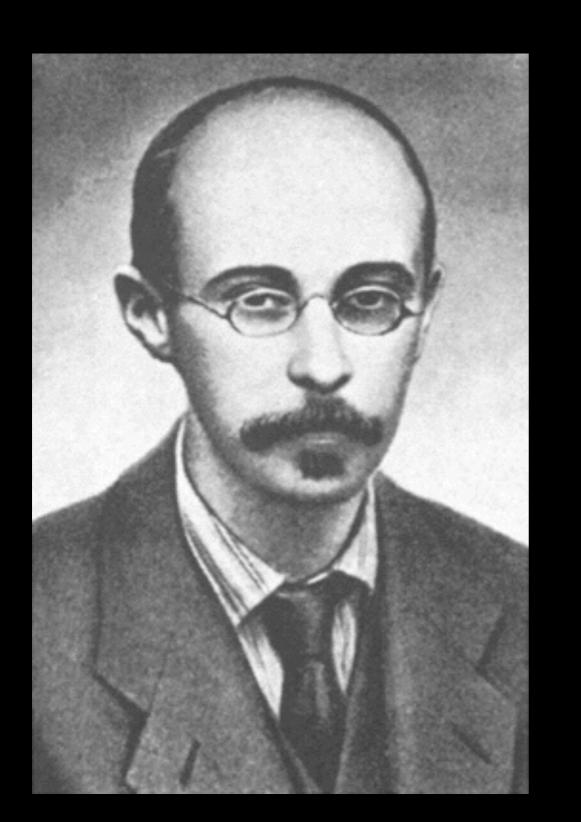
Kosmologische Betrachtungen zur allgemeinen Relativitätstheorie.

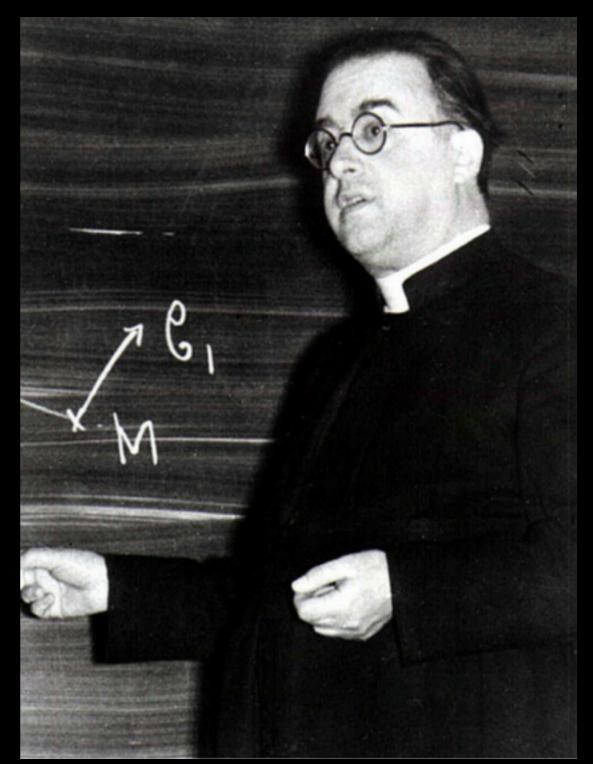
Von A. EINSTEIN.

Es ist wohlbekannt, daß die Poissonsche Differentialgleichung

$$\Delta \phi = 4\pi K \rho \tag{1}$$

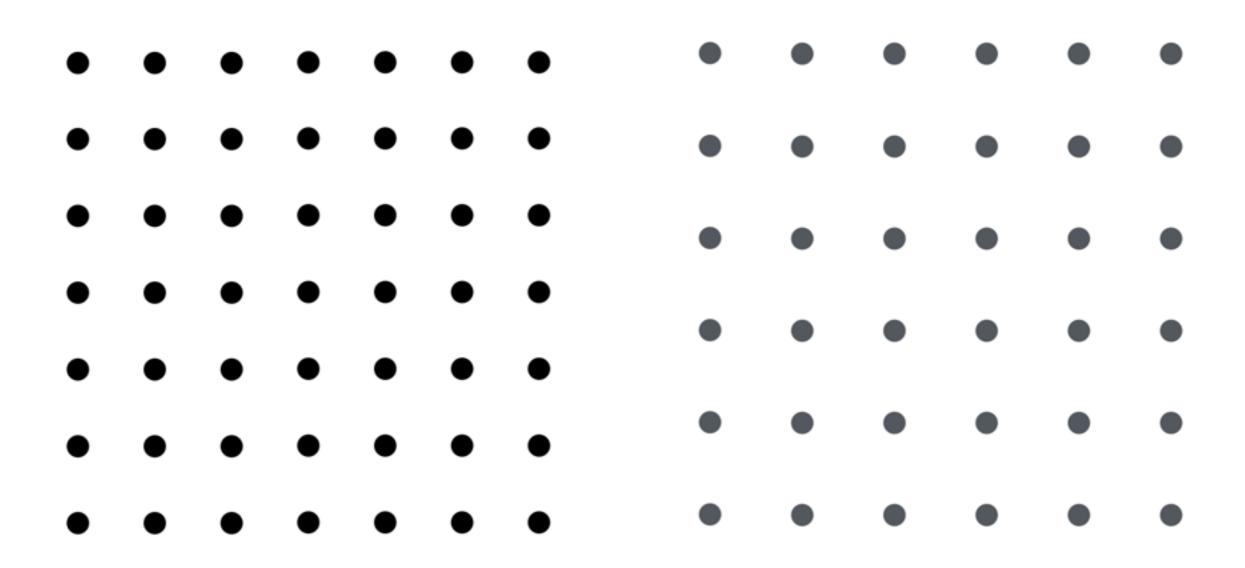
in Verbindung mit der Bewegungsgleichung des materiellen Punktes die Newtonsche Fernwirkungstheorie noch nicht vollständig ersetzt. Es muß noch die Bedingung hinzutreten, daß im räumlich Unendlichen das Potential ϕ einem festen Grenzwerte zustrebt. Analog verhält es sich bei der Gravitationstheorie der allgemeinen Relativität;

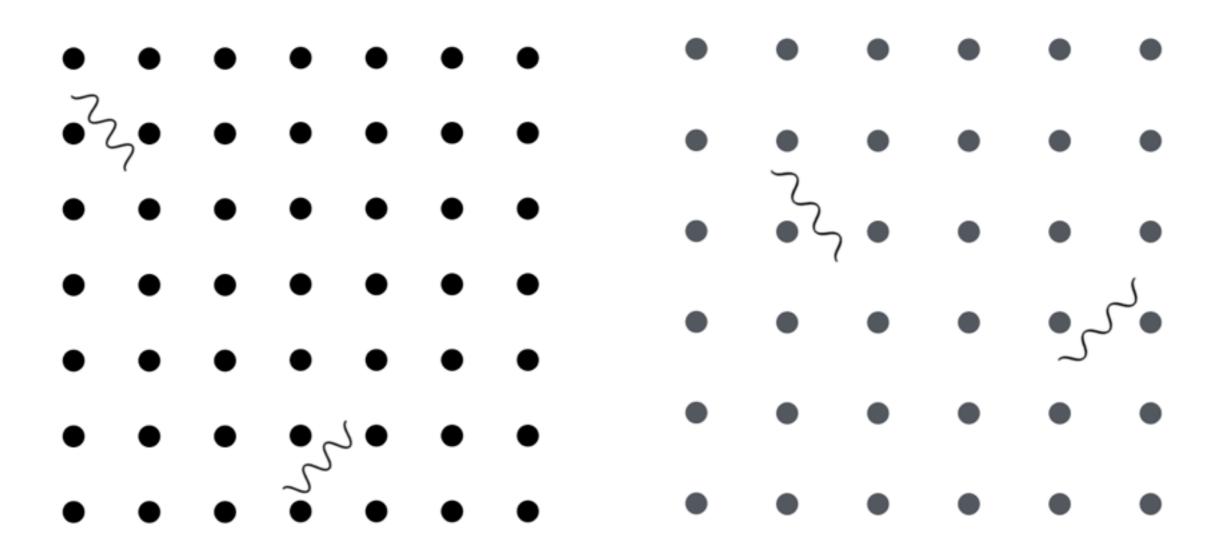


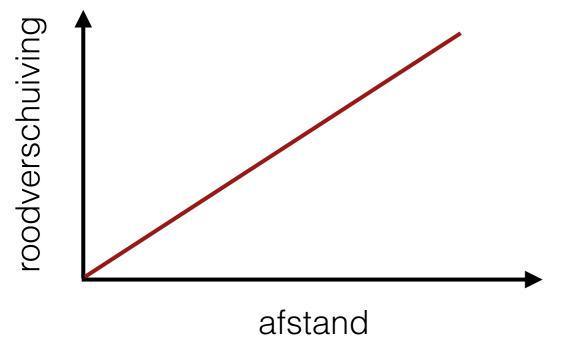


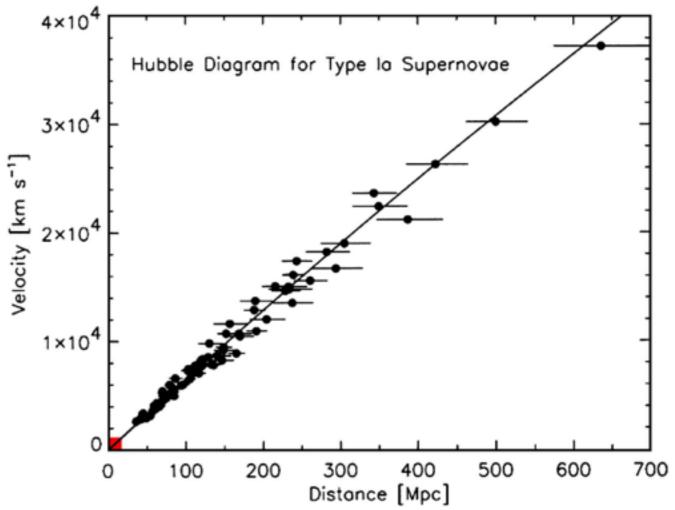


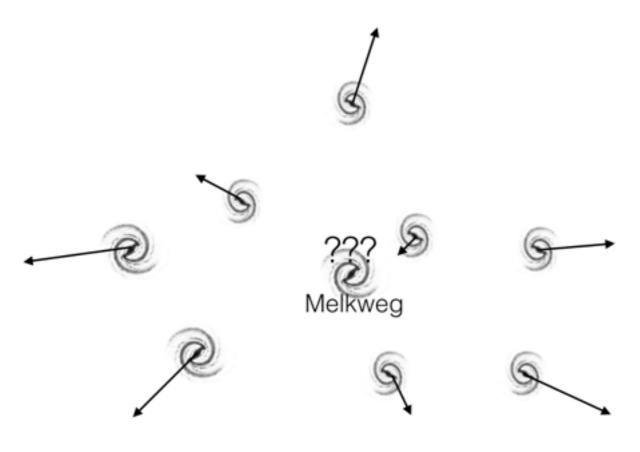
"vos calculs sont corrects mais votre physique est abominable"



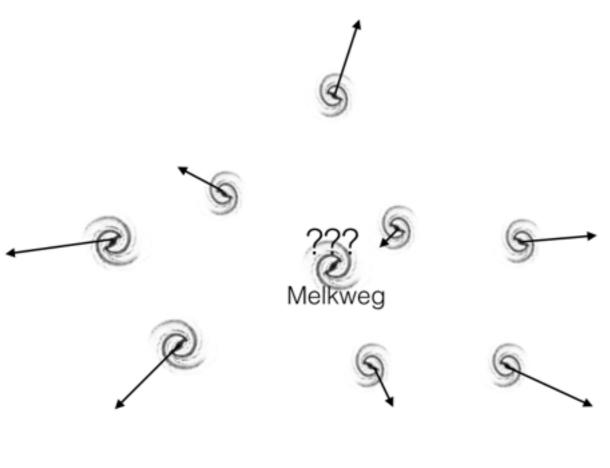




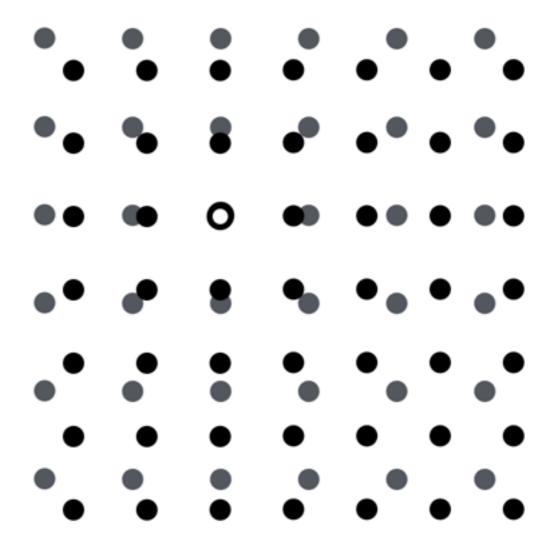


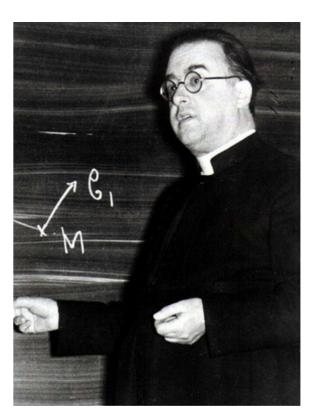












Le Maitre Suggests One, Single, Great Atom, Embracing All Energy, Started the Universe

of the world as a single great atom, he holds. which, by a kind of super-radioactive process may have divided into smaller | quantum theory happens to turn in and smaller atoms until life became that direction, we could conceive the possible has been suggested by the beginning of the universe in the form Abbe G. Lemaître, a celebrated astronomer of the University of Louvain, in a letter to Nature, a British | universe." Father Lemaitre contends scientific weekly.

Taking as his postulate the quantum theory, under which there is a constant total amount of energy in | by a kind of super-radioactive procthe universe, distributed in vehicles ess. Some remnant of this process known as quanta, which are ever might, according to Sir James Jeans's increasing in number, Father Le-lidea, foster the heat of the stars maître reasons inductively that if until our low atomic number of atoms we go back in the course of time we allowed life to be possible. should find fewer and fewer quanta. great quantum.

original quantum had been divided may be written step by step."

A new conception of the beginning into a sufficient number of quanta,

"If the future development of the of a unique atom, the atomic weight of which is the total mass of the "This highly unstable atom would divide in smaller and smaller atoms

"Clearly the initial quantum could until all the energy of the universe not conceal in itself the whole course was packed in a few, or even one of evolution; but, according to the principle of indeterminacy, that is This beginning of the world ante- not necessary. Our world is now undated somewhat the beginnings of derstood to be a world where somespace and time, which are "no more thing really happens; the whole story than statistical notions" which fade of the world need not have been out when applied to individual phe-written down in the first quantum nomena involving only a small num- like a song on the disk of a phonober of quanta, Father Lemaître sug- graph. The whole matter of the gests. Space and time began to have world must have been present at the a sensible meaning only when the beginning, but the story it has to tell

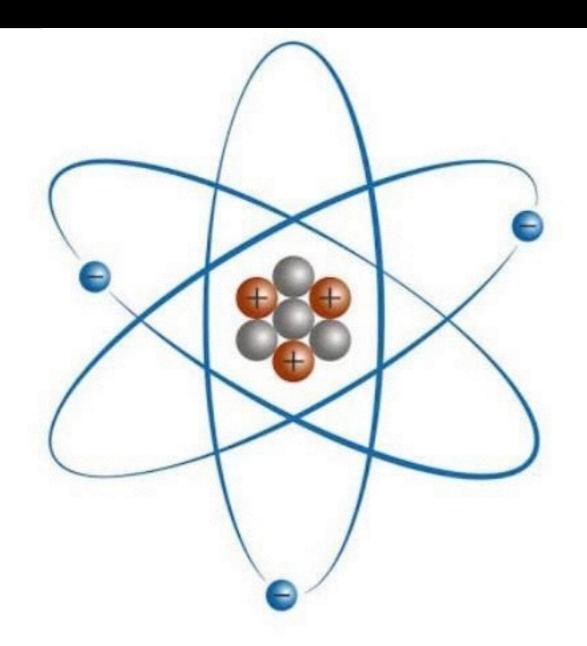
The New Hork Times

hydrogen	R 378												10.5		100	350	2000	holium
1.1																		2
H																		He
1.0079 lithium	beryllium											r	boron	carbon	ritrogen	oxygen	fluorine	4.0026 noon
3	4											- 1	5	6	7	8	9	10
Li	Be												В	C	N	0	F	Ne
6.941	9.0122											1	10.811	12.011	14.007	15.999	18,998	20.180
sodium 11	magnesium 12											- 1	alumhium 13	sticon 14	phosphorus 15	sulfur 16	chlorine 17	argon 18
Na	Mg												AI	Si	P	S	CI	Ar
22.990	24,305												26.982	28.096	30,974	32.065	35,453	39.948
potassium	coldium		scandium	titanium	vanadium	chromium	manganese	iron	cobalt	nickel	copper	zinc	gallium	germanium	arsonic	selonium	bromino	krypton 36
19	20		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	
						O	D //		-		C	7	0-	0-	A -	0 -	D	//
K	Ca		Sc	Ti	٧	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
39.098	40.078		44.966	47.867	50.942	51.996	54.938	55,845	58.933	58,693	63,546	65,39	69.723	72.61	74.922	78.96	79,984	83.80
								331 350										
39.098 rubidium 37	40.078 strontium 38		44.966 yttrium	47.867 zirconium 40	50.942 niobium 41	51,996 molybdenum 42	54.938 technetum 43	55,845 ruthenium 44	58.933 rhodium 45	58.693 palladium 46	63,546 silver 47	65,39 cadmium 48	69.723 inclum 49	72.61 tin 50	74.922 antimony 51	78,96 tellurium 52	79.984 lodine	83.80 xenon 54
39.098 rubidum 37 Rb	40.078 strontium 38 Sr 87.62		44.966 yttrium 39 Y 88.906	47.867 zirconium 40 Zr 91.224	50.942 nioblum 41 Nb 92.906	51,996 molybdenum 42 Mo 95,94	54.938 technetium 43 TC [98]	55,845 ruthenium 44 Ru 101,07	58.933 rhodium 45 Rh 102.91	58.693 palladium 46 Pd 106.42	63,546 silver 47 Ag 107,87	65.39 cadmium 48 Cd 112.41	69.723 Indium 49 In	72.61 tin 50 Sn 118.71	74.922 antimony 51 Sb 121.76	78,96 tellurium 52 Te 127.60	79.984 lodine 53 1 126.90	83.80 xenon 54 Xe
39.098 rubidium 37 Rb 85.468 caesium	strontum 38 Sr 87.62 barium	57-70	44.966 yttrium 39 Y 88.906 lutetum	47.867 zirconium 40 Zr 91.224 hafnium	50.942 niobium 41 Nb 92.906 tantalum	51,996 molybdenum 42 Mo 95,94 tungsten	54.938 technetum 43 TC [98] thenium	ss.845 ruthenium 44 Ru 101.07 osmlum	58.933 rhodium 45 Rh 102.91 ridium	palladium 46 Pd 106,42 platinum	63,546 silver 47 Ag 107,87 gold	65.39 cadmium 48 Cd 112.41 morcury	69,723 Indium 49 In 114,82 thallium	72.61 tin 50 Sn 118.71 lead	74,922 antimony 51 Sb 121,76 bismuth	78.96 tellurium 52 Te 127.60 polonium	79.904 lodine 53 1 126.90 astatine	83.80 xenon 54 Xe 131.29 maton
39.098 rubidium 37 Rb 85.468 caesium 55	40.078 strontum 38 Sr 87.62 barium 56	57-70	44.966 ytirium 39 Y 88.906 luletum 71	47.867 zirconium 40 Zr 91.224 hafinium 72	50.942 nioblum 41 Nb 92.906 tantalum 73	51,996 molybdenum 42 Mo 95,94 hungsten 74	54.938 technetum 43 TC [98] thenium 75	55,845 ruthenium 44 Ru 101,07 osmlum 76	58,933 rhodium 45 Rh 102,91 ridium 77	58,693 palladium 46 Pd 106,42 platinum 78	63,546 shver 47 Ag 107,87 gold 79	65.39 cadmium 48 Cd 112.41 morcury 80	69,723 Inclum 49 In 114,82 thaffum 81	72.61 tin 50 Sn 118.71 load 82	74,922 antlimony 51 Sb 121,76 bismuth 83	78.96 tellurium 52 Te 127.60 polonium 84	79.904 lodine 53 1 126.90 astatine 85	83.80 xenon 54 Xe 131.29 radon 86
39.098 rubidium 37 Rb 85.468 coesium 55 Cs	40.078 strontum 38 Sr 87.62 barium 56 Ba	57-70 X	44.966 ythrum 39 Y 88.906 lutetum 71 Lu	47.867 zirconium 40 Zr 91.224 hafnium 72 Hf	50.942 niobium 41 Nb 92.906 tantalum 73 Ta	51,996 molybdenum 42 Mo 95,94 tungsten 74 W	54.938 technetum 43 Tc [98] thenium 75 Re	55,845 ruthenium 44 Ru 101,07 osmium 76 Os	58,933 rhodium 45 Rh 102,91 ridium 77 Ir	palladium 46 Pd 106.42 platinum 78 Pt	63,546 silver 47 Ag 107,87 gold 79 Au	65.39 cadmium 48 Cd 112.41 morcury 80 Hg	69,723 Inclum 49 In 114,82 thaffum 81	72.61 tin 50 Sn 118.71 load 82 Pb	74,922 antimony 51 Sb 121,76 bismuth 83 Bi	78.96 tellurium 52 Te 127.60 polonium 84 Po	79.904 lodine 53 l 126.90 astatine 85 At	83.80 xenon 54 Xe 131.29 maton 86 Rn
39.098 nældism 37 Rb 85.468 caesium 55 Cs 132.91	40.078 strontium 38 Sr 87.62 barium 56 Ba 137.33		44.966 ytirium 39 Y 88.906 luletum 71	47.867 zirconium 40 Zr 91.224 hafnium 72 Hf	50.942 nioblum 41 Nb 92.906 tantalum 73	51,996 molybdenum 42 Mo 95,94 hungsten 74 W 183,84	54.938 technetum 43 TC [98] thenium 75 Re 186.21	55,845 ruthenium 44 Ru 101,07 osmlum 76 Os 190,23	58,933 rhodium 45 Rh 102,91 ridium 77	58,693 palladium 46 Pd 106,42 platinum 78	63,546 shver 47 Ag 107,87 gold 79	65.39 cadmium 48 Cd 112.41 mercury 80 Hg 200.59	69,723 Inclum 49 In 114,82 thaffum 81	72.61 tin 50 Sn 118.71 load 82 Pb 207.2	74,922 antlimony 51 Sb 121,76 bismuth 83	78.96 tellurium 52 Te 127.60 polonium 84	79.904 lodine 53 1 126.90 astatine 85	83.80 xenon 54 Xe 131.29 maton 86
39.098 rubidium 37 Rb 85.468 consium 55 Cs	40.078 strontum 38 Sr 87.62 barium 56 Ba		44.966 yttrium 39 Y 88.906 lutetum 71 Lu 174.97	47.867 zirconium 40 Zr 91.224 hafnium 72 Hf	50.942 niobium 41 Nb 92.906 tantalum 73 Ta 180.95	51,996 molybdenum 42 Mo 95,94 tungsten 74 W	54.938 technetum 43 Tc [98] thenium 75 Re	55,845 ruthenium 44 Ru 101,07 osmium 76 Os	58.933 rhodium 45 Rh 102.91 ridium 77 Ir 192.22	58.693 palladium 46 Pd 106.42 platinum 78 Pt 195.08	63,546 silver 47 Ag 107,87 gold 79 Au 196,97	65.39 cadmium 48 Cd 112.41 morcury 80 Hg	69,723 Inclum 49 In 114,82 thaffum 81	72.61 tin 50 Sn 118.71 load 82 Pb	74,922 antimony 51 Sb 121,76 bismuth 83 Bi	78.96 tellurium 52 Te 127.60 polonium 84 Po	79.904 lodine 53 l 126.90 astatine 85 At	83.80 xenon 54 Xe 131.29 maton 86 Rn
39.098 rubidium 37 Rb 85.468 cansium 55 Cs 132.91 tranctum	40,078 strontium 38 Sr 87,62 barium 56 Ba 137,33 radium	*	44.966 yttrium 39 Y 88.906 lutetum 71 Lu 174.97 lawrendum	47.867 zirconium 40 Zr 91.224 hafnium 72 Hf 178.49 rutherfordium	Nb 92,906 tantalum 73 Ta 180,95 dubnium	51,996 molybdenum 42 Mo 96,94 hungsten 74 W 183,84 seaborgium	54.938 technetum 43 TC [98] thenium 75 Re 186.21 bohrium	55,845 ruthenium 44 Ru 101,07 osmlum 76 Os 190,23 hassium	58.933 rhodium 45 Rh 102.91 ridium 77 Ir 192.22 metherium	palladium 46 Pd 106.42 platinum 78 Pt 196.08 ununnilium 110	63,546 silver 47 Ag 107,87 gold 79 Au 196,97 unununium	65.39 cadmium 48 Cd 112.41 mercury 80 Hg 200.59 unurbium 112	69,723 Indium 49 In 114,82 thailium 81 TI 204,38	72.61 tin 50 Sn 118.71 load 82 Pb 207.2 ununquadium	74,922 antimony 51 Sb 121,76 bismuth 83 Bi 208,98	78.96 tellurium 52 Te 127.60 polonium 84 Po	79.904 lodine 53 l 126.90 astatine 85 At	83.80 xenon 54 Xe 131.29 radon 86 Rn

*Lanthanide series

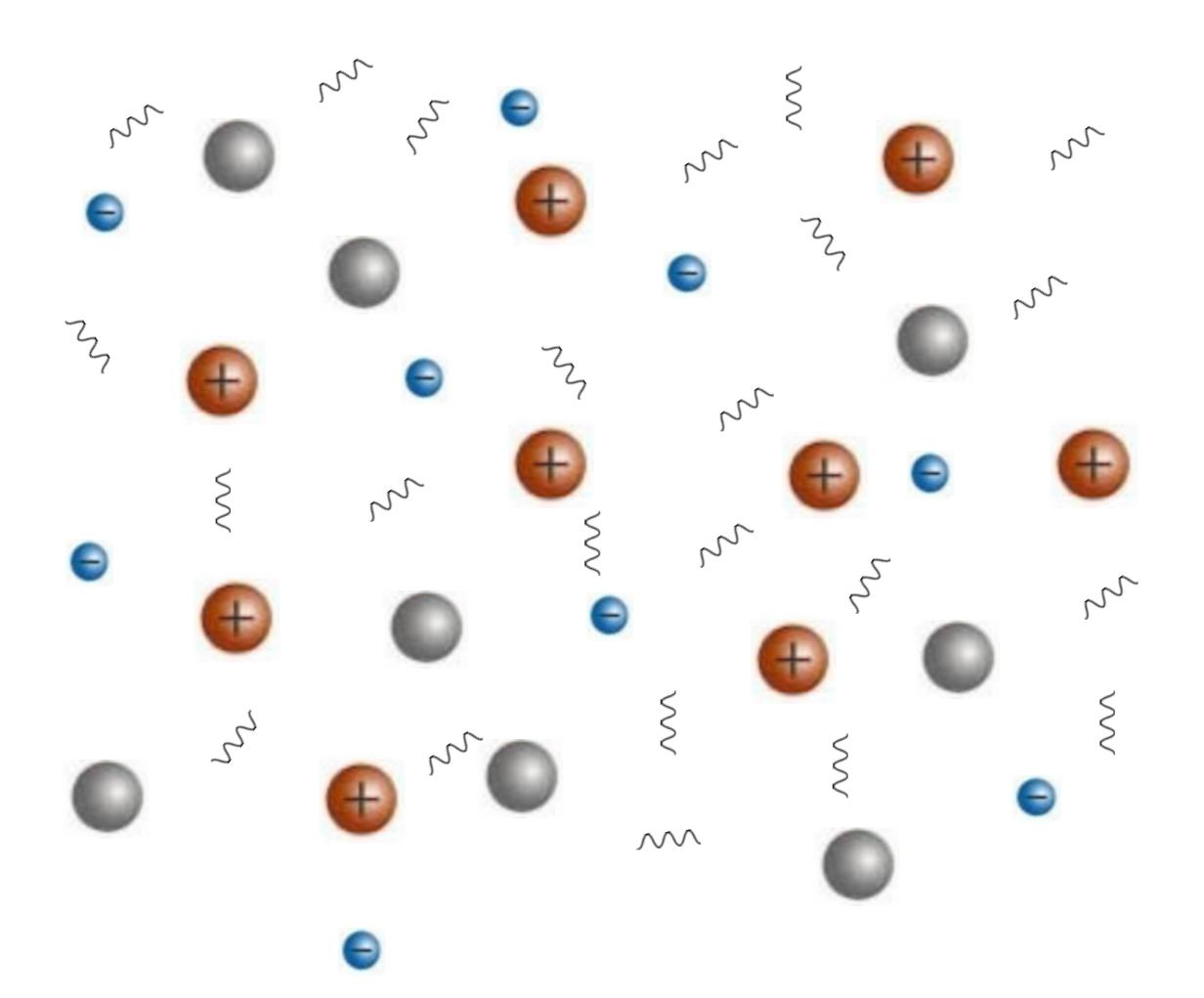
* * Actinide series

57	certura 58	praseodymium 59	neodymium 60	promethium 61	samarium 62	europium 63	gadolinium 64	terbium 65	dysprosium 66	holmium 67	erbium 68	thulium 69	ytterbium 70
La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Но	Er	Tm	Yb
138.91	140.12	140.91	144.24	[145]	150.36	151.96	157.25	158.93	162.50	164.93	167.26	168.93	173.04
actinium 89	thorium 90	protactinium 91	uranium 92	neptunium 93	plutonium 94	americium 95	gurium 96	berkelium 97	ealifornium 98	einsteinium 99	fermium 100	mendelevium 101	nobelium 102
Ac	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No
[227]	232.04	231.04	238.03	[237]	[244]	[243]	[247]	[247]	[251]	[252]	[257]	[258]	[259]

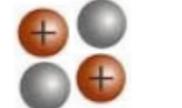


Atom structure

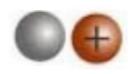
- Proton
- Neutron
- Electron







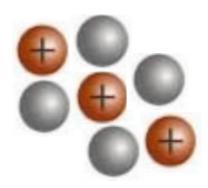
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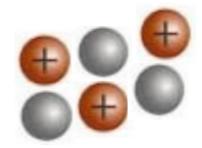
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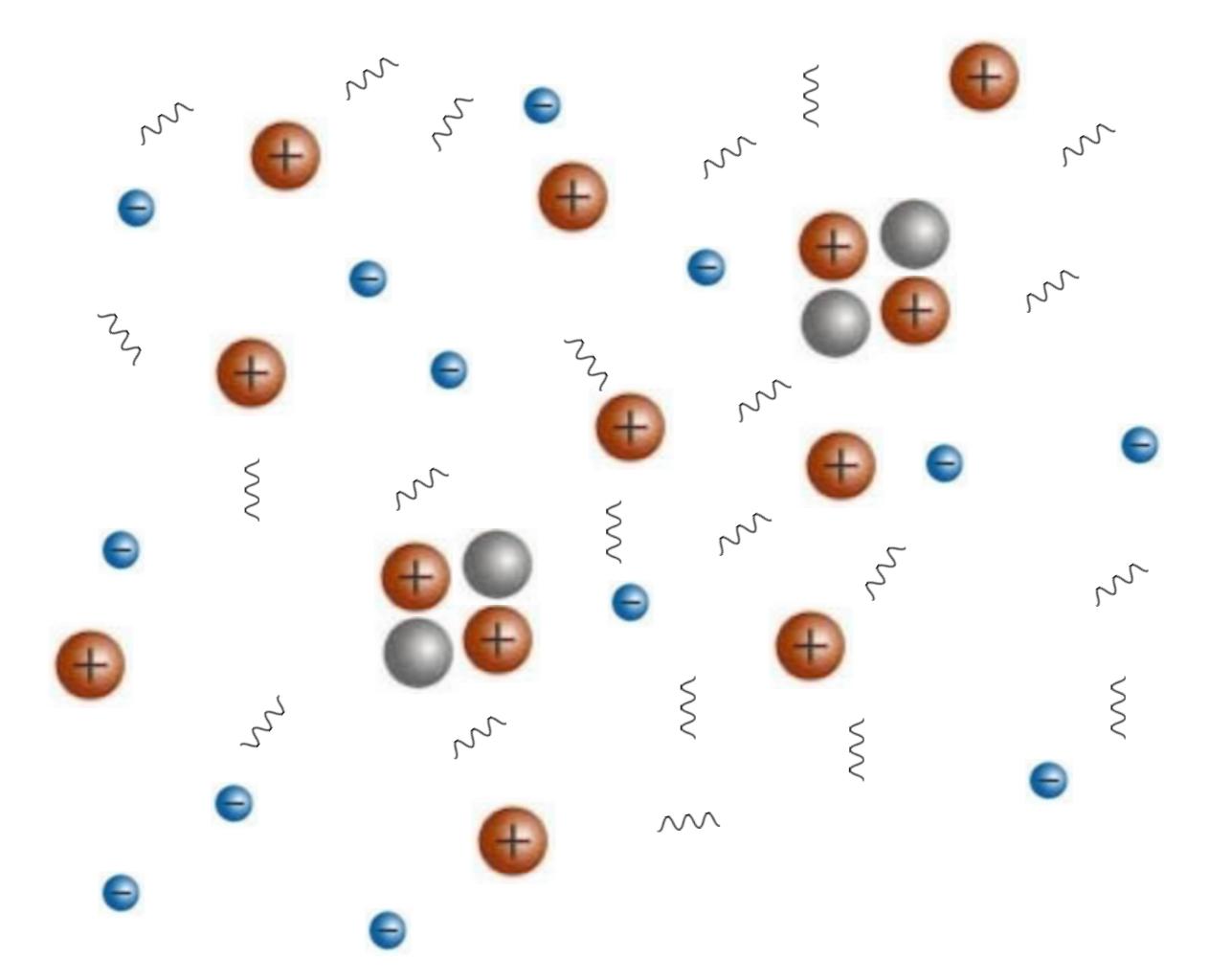
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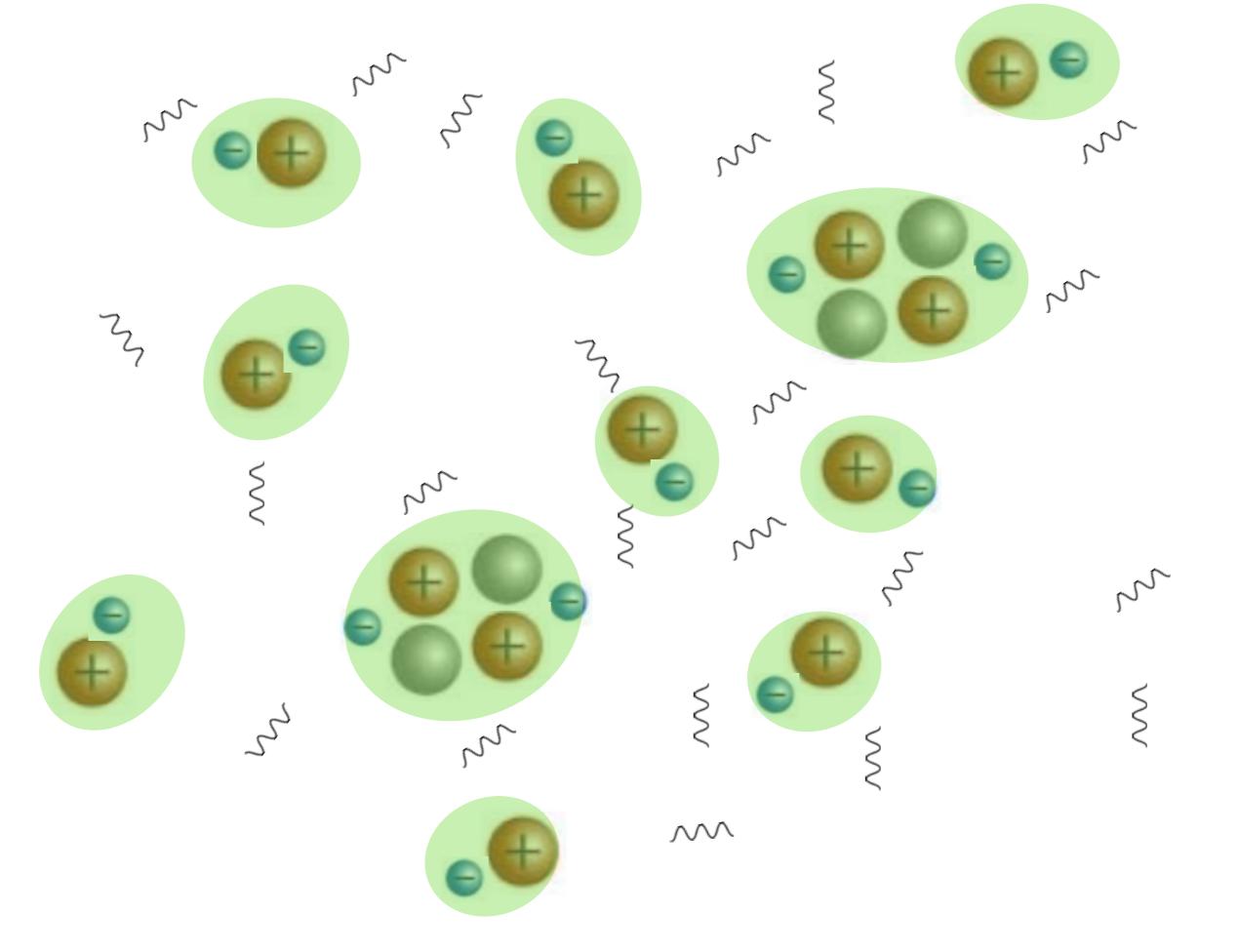


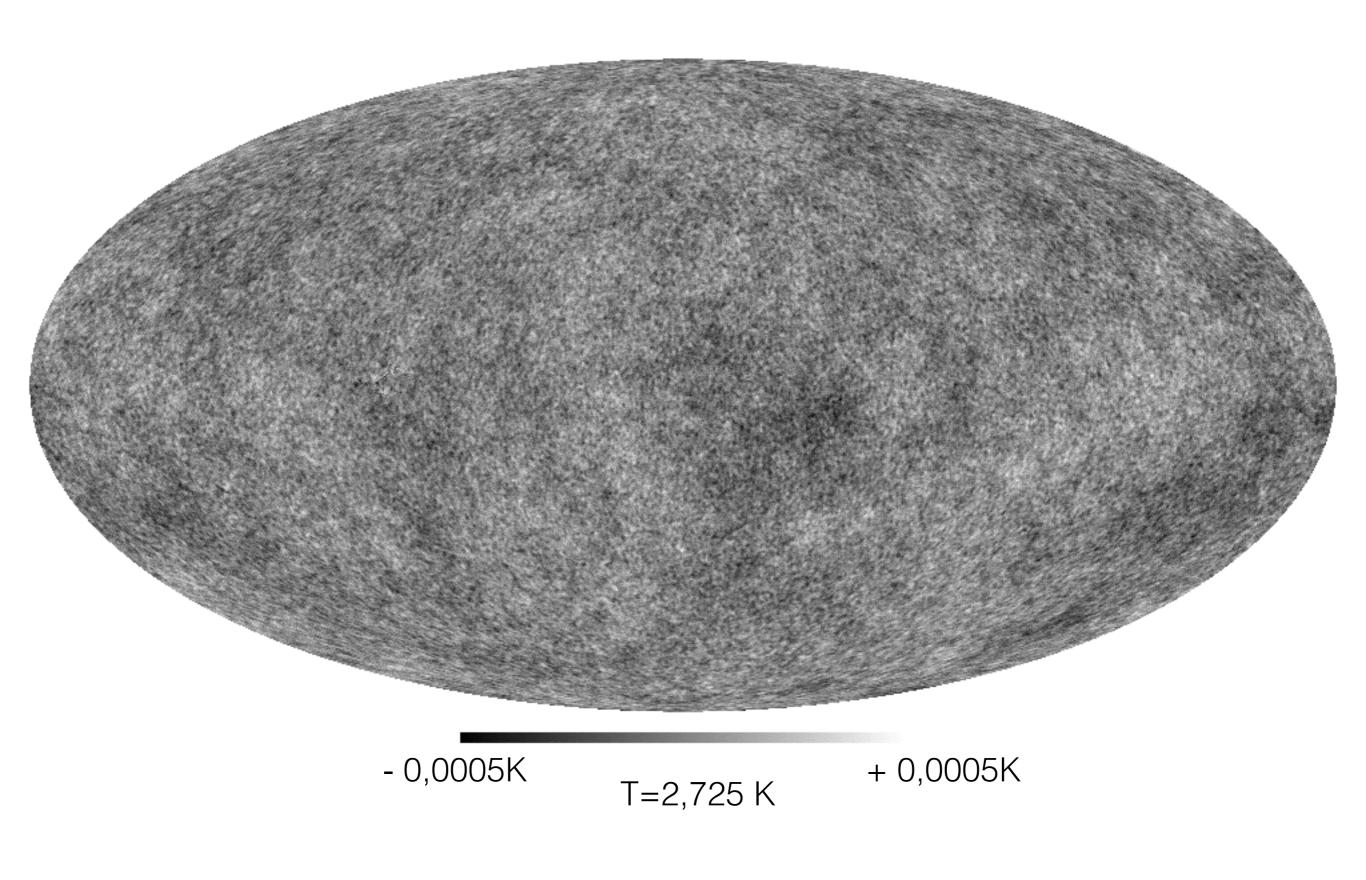
0.00000000465



0.00000000000129







Wat weten we over het heelal?

dat het begon met een grote KNAL