

Harmony of the spheres

Universal musical key

(The golden ratio and the Science of harmonics)



1st part: Introduction

If you love music, take a few minutes of your time and read attentively what is following and discover one of the greatest inventions based on a new musical perception. Everything started when the inventor associate together the diatonic scale and the chromatic scale by using numbers to indicate each degree (see Fig.1). By looking at the numbers that correspond to the intervals that constitute a Perfect Major Chord, you can see appear the legendary Fibonacci sequence (the golden section - PHI - or the divine proportion). With the discovery of a “Musical Universal Key”, M. Sylvain Lalonde, the inventor, demonstrates where this revolutionary easy approach method begin.

With the research of the harmony



The golden section influences the Western vision of the harmony
The sequence of Fibonacci... 1-1-2-3-5-8-13... applies to this rule

Ex: Perfect Majeur Chords: C,E,G,C

Tonic	Tone		Second	Tone		Third	Semitone	Tone		Fourth	Tone		Fifth	Tone		Sixth	Tone		Seventh	Semitone		Octave
	1	2		3	4		5	6	7		8	9		10	11		12	13				
C	C [#]	D ^b	D	D [#]	E ^b	E	F	F [#]	G ^b	G	G [#]	A ^b	A	A [#]	B ^b	B	C					
1	2	3	4	5	6	7	8	9	10	11	12	13										
Semitone		Semitone		Semitone		Semitone		Semitone		Semitone		Semitone		Semitone		Semitone		Semitone		Semitone		
A													B									

When $(A + B) / A = A / B$. The A / B ratio is then equal to the golden ratio.

$$8 / 5 = 1.6$$

Uclide d'Alexandrie

* For more details on natural harmonics see fig.6 & 7 section R&D
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2nd part: Diatonic scale vs Chromatic scale

12 Sounds = 12 Tones = 12 Tonalties

Let's look at the same graphics on a 360-degree platform.. The use of black and white is used to represent the notes of a piano, to help understand this new perception.

Select and print Fig. 3 (picture) cut the two discs, then cut down the 7 windows that correspond to the intervals on disc 1 (Item 32). Overlap disc 1 over the second disc (Item 30) and then position the 1st degree (“Tonic”) on C, you’ll get the “C-D-E-F-G-A-B” sequence.

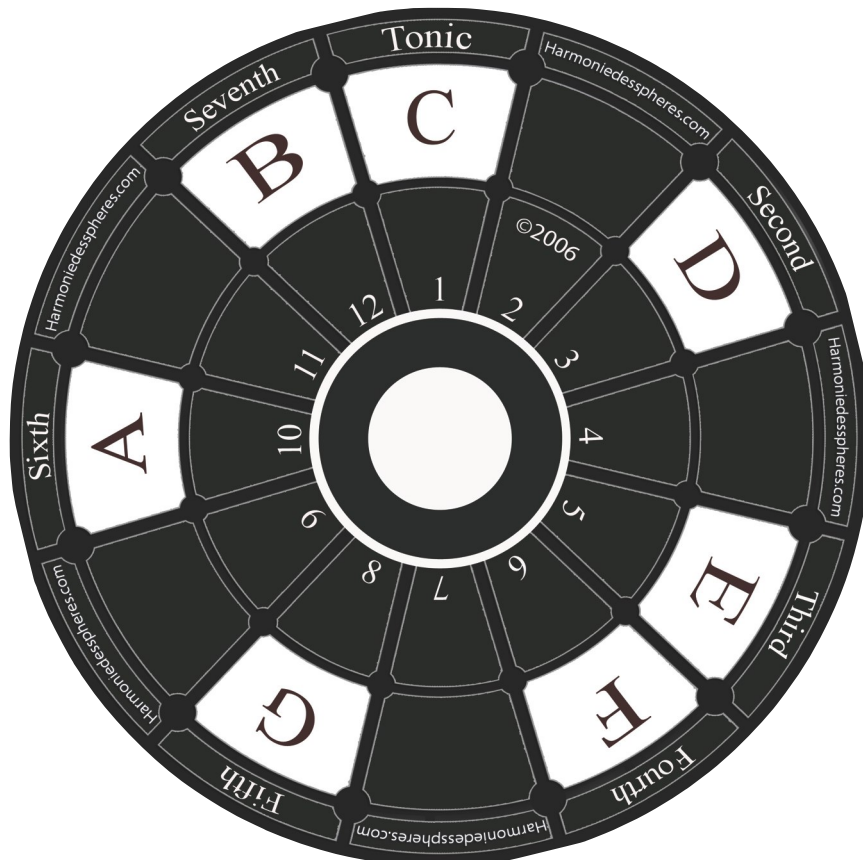
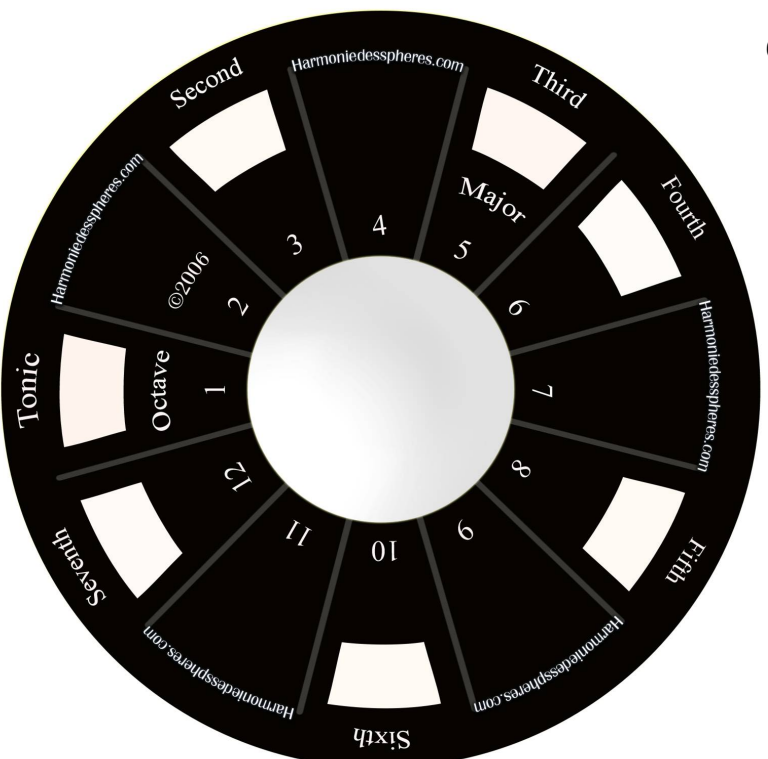


Fig.3



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Now move the “Tonic” on the “Fifth”, the G, this way you obtain the alterations that constitutes the key frame of our tonal system and so on.
We call this:

« The Cycle of Fifths »

Ascending = Sharp order = F, C, G, D, A, E, B

Descending = Flat order = B, E, A, D, G, C, F

Fig.3B

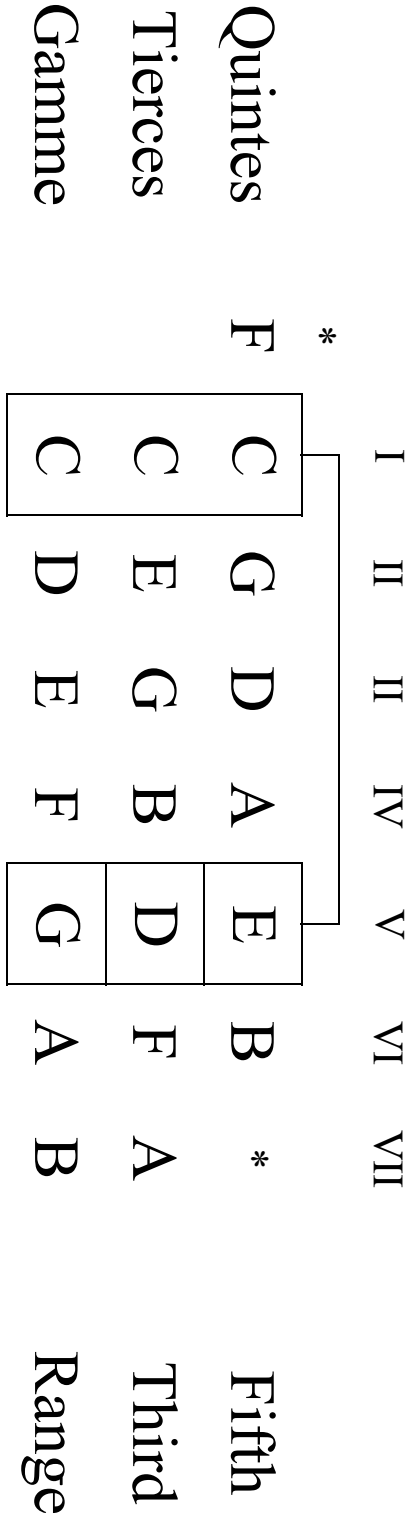
Note that the order of flats is the opposite of sharps

order of #		F	C	G	D	A	E	B	order of b	
Tonality										Major Range
C#	order of #	F#	C#	G#	D#	A#	E#	B#	order of b	 Cycle of Fifths 
F#	order of #	F#	C#	G#	D#	A#	E#	B	order of b	
B	order of #	F#	C#	G#	D#	A#	E	B	order of b	
E	order of #	F#	C#	G#	D#	A	E	B	order of b	
A	order of #	F#	C#	G#	D	A	E	B	order of b	
D	order of #	F#	C#	G	D	A	E	B	order of b	
G	order of #	F#	C	G	D	A	E	B	order of b	
C	order of #	F	C	G	D	A	E	B	order of b	
F	order of #	F	C	G	D	A	E	Bb	order of b	
Bb	order of #	F	C	G	D	A	Eb	Bb	order of b	
Eb	order of #	F	C	G	D	Ab	Eb	Bb	order of b	
Ab	order of #	F	C	G	Db	Ab	Eb	Bb	order of b	
Db	order of #	F	C	Gb	Db	Ab	Eb	Bb	order of b	
Gb	order of #	F	Cb	Gb	Db	Ab	Eb	Bb	order of b	
Cb	order of #	Fb	Cb	Gb	Db	Ab	Eb	Bb	order of b	

Fig.3d

Cycles des quintes

Cycles of fifths



* Selon l'ordre des dièses / orders of sharps

3rd part: the natural harmonics vs temperate

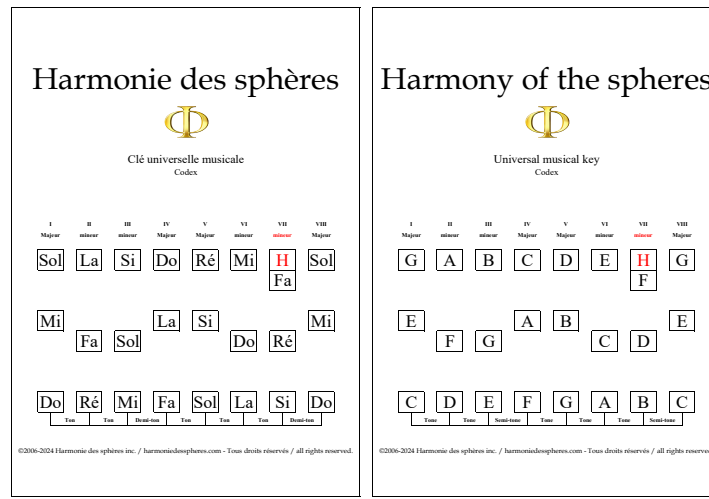
Each note is made of natural multiples called harmonics

At each degree of the scale, there is a three fundamental sound chord

The chords of three sounds consists of a fundamental
a third party (major or minor) and a fifth just.

« THE THIRD CYCLE »

« C, E, G, B, D, F, A »



The notes of a chord can be duplicated at the octave or arpeggiated without
altering the identity of the chord.

You can select and print Fig.3c (Codex) in legal format.

Cut the two parts (A and B) according to the language you want.

Also cut the twenty-four (24) windows (Part A) that correspond to the

« Music intervals »

I degree	C, E, G
II degree	D, F, A
III degree	E, G, B
IV degree	F, A, C
V degree	G, B, D
VI degree	A, C, E
VII degree	B, D, F
VIII degree	C, E, G

Then superimpose part A on part B and position the 1st degree on the C, you will obtain at each degree the notes of all the chords.

You can change the tone as you wish,

The results will be the same.

P.S. You can also use an ABS tube with a diameter of
1.5 inch or 3.81 cm to make it circular shape.

Fig.3c (Codex)

P
A
R
T
I
E

A

Harmonie des sphères



Clé universelle musicale
Codex

I
Majeur

II
mineur

III
mineur

IV
Majeur

V
Majeur

VI
mineur

VII
mineur

VIII
Majeur

Sol

La

Si

Do

Ré

Mi

H

Sol

Mi

La

Si

Do

Ré

Mi

Fa

Sol

Do

Ré

Mi

Fa

Sol

La

Si

Do

Ton

Ton

Demi-ton

Ton

Ton

Ton

Ton

Demi-ton

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Harmony of the spheres



Universal musical key
Codex

I
Majeur

II
mineur

III
mineur

IV
Majeur

V
Majeur

VI
mineur

VII
mineur

VIII
Majeur

G

A

B

C

D

E

H

G

E

A

B

C

D

E

F

G

C

D

E

F

G

A

B

C

Tone

Tone

Semi-tone

Tone

Tone

Tone

Tone

Semi-tone

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P
A
R
T

A

P
A
R
T
I
E

B

Do	Ré	Mi	Fa	Sol	La	Si	Do
Si	Ré ^b	Mi ^b	Fa ^b	Sol ^b	La ^b	Si ^b	Do ^b
S ^b	D ^b	R ^b	F ^b	S ^b	L ^b	S ^b	D ^b
L ^a	D ^a	R ^a	F ^a	S ^a	L ^a	S ^a	D ^a
La	Si	Do	Ré	Mi	Sol	La	Si
S ^b	R ^b	M ^b	F ^b	S ^b	L ^b	S ^b	D ^b
L ^a	D ^a	R ^a	F ^a	S ^a	L ^a	S ^a	D ^a
Sol	La	Si	Do	Ré	Mi	Sol	La
S ^b	R ^b	M ^b	F ^b	S ^b	L ^b	S ^b	D ^b
Fa	Sol	La	Si	Do	Ré	Mi	Fa
S ^a	D ^a	R ^a	F ^a	S ^a	L ^a	S ^a	D ^a
Mi	Fa	Sol	La	Si	Do	Ré	Mi
M ^b	R ^b	F ^b	S ^b	L ^b	S ^b	D ^b	M ^b
Ré	Mi	Sol	Fa	La	Si	Do	Ré
R ^b	M ^b	F ^b	S ^b	L ^b	S ^b	D ^b	R ^b
Do	Ré	Mi	Fa	Sol	La	Si	Do
S ^b	R ^b	M ^b	F ^b	S ^b	L ^b	S ^b	D ^b
Si	Do	Ré	Mi	Sol	La	Si	Do
S ^b	R ^b	M ^b	F ^b	S ^b	L ^b	S ^b	D ^b
La	Si	Do	Ré	Mi	Sol	La	Si
S ^b	R ^b	M ^b	F ^b	S ^b	L ^b	S ^b	D ^b
Sol	La	Si	Do	Ré	Mi	Sol	La
S ^b	R ^b	M ^b	F ^b	S ^b	L ^b	S ^b	D ^b
Fa	Sol	La	Si	Do	Ré	Mi	Fa
S ^a	D ^a	R ^a	F ^a	S ^a	L ^a	S ^a	D ^a
Mi	Fa	Sol	La	Si	Do	Ré	Mi
M ^b	R ^b	F ^b	S ^b	L ^b	S ^b	D ^b	M ^b
Ré	Mi	Sol	Fa	La	Si	Do	Ré
R ^b	M ^b	F ^b	S ^b	L ^b	S ^b	D ^b	R ^b
Do	Ré	Mi	Fa	Sol	La	Si	Do
S ^b	R ^b	M ^b	F ^b	S ^b	L ^b	S ^b	D ^b

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C	D	E	F	G	A	B	C
D ^b	C ^b	E ^b	D ^b	F ^b	A ^b	B ^b	C ^b
B ^b	A ^b	C ^b	D ^b	E ^b	F ^b	G ^b	B ^b
A ^b	B ^b	C ^b	D ^b	E ^b	F ^b	G ^b	A ^b
G ^b	A ^b	B ^b	C ^b	D ^b	E ^b	F ^b	G ^b
F ^b	G ^b	A ^b	B ^b	C ^b	D ^b	E ^b	F ^b
E ^b	F ^b	G ^b	A ^b	B ^b	C ^b	D ^b	E ^b
D ^b	E ^b	F ^b	G ^b	A ^b	B ^b	C ^b	D ^b
C ^b	D ^b	E ^b	F ^b	G ^b	A ^b	B ^b	C ^b
B ^b	A ^b	C ^b	D ^b	E ^b	F ^b	G ^b	B ^b
A ^b	B ^b	C ^b	D ^b	E ^b	F ^b	G ^b	A ^b
G ^b	A ^b	B ^b	C ^b	D ^b	E ^b	F ^b	G ^b
F ^b	G ^b	A ^b	B ^b	C ^b	D ^b	E ^b	F ^b
E ^b	F ^b	G ^b	A ^b	B ^b	C ^b	D ^b	E ^b
D ^b	E ^b	F ^b	G ^b	A ^b	B ^b	C ^b	D ^b
C ^b	D ^b	E ^b	F ^b	G ^b	A ^b	B ^b	C ^b
B ^b	A ^b	C ^b	D ^b	E ^b	F ^b	G ^b	B ^b
A ^b	B ^b	C ^b	D ^b	E ^b	F ^b	G ^b	A ^b
G ^b	A ^b	B ^b	C ^b	D ^b	E ^b	F ^b	G ^b
F ^b	G ^b	A ^b	B ^b	C ^b	D ^b	E ^b	F ^b
E ^b	F ^b	G ^b	A ^b	B ^b	C ^b	D ^b	E ^b
D ^b	E ^b	F ^b	G ^b	A ^b	B ^b	C ^b	D ^b
C ^b	D ^b	E ^b	F ^b	G ^b	A ^b	B ^b	C ^b

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P
A
R
T

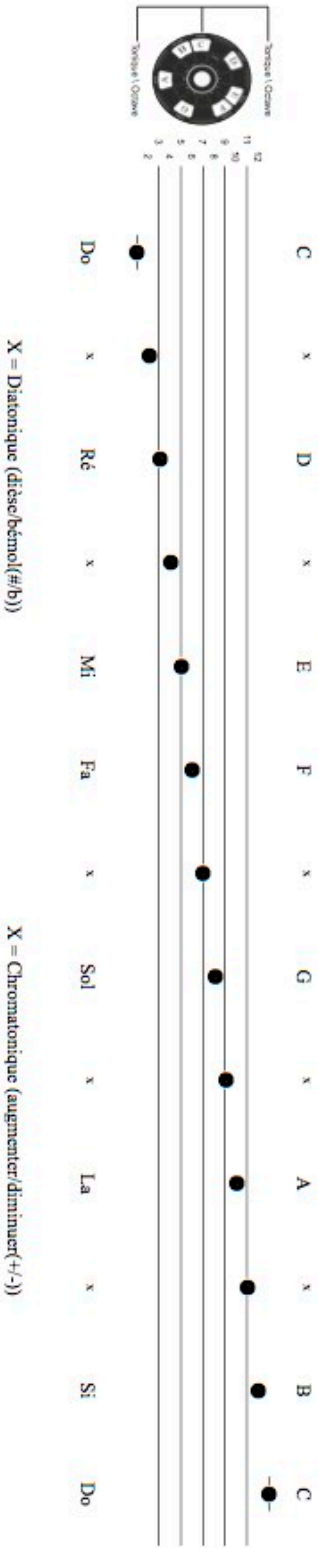
B

Harmony of the spheres



Fig.4

Musical universal key
Musical Instrument Digital Interface



Select and print at legal format the Fig.4b (image) then cut the two rulers along the lines shown and also cut the eight (8) windows that correspond to the intervals of music.

Then superimpose the part of the center on the top of the rule that suits you and position the 1st degree (Tonic) on the C, you will obtain the sequence

“ C-D-E-F-G-A-B-C ”

You can repeat the exercise in fig.3
or simply move the ruler by tone or semitone.

What is important here is that no matter the tone (tonal height) in which you play, the intervals will always be the same :

Major (which constitute the key frame of our tonal system) or minor.



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Cut

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To fold

C

B

B^b_{A[#]}

A

A^b_{G[#]}

G

G^b_{F[#]}

F

E

E^b_{D[#]}

D

D^b_{C[#]}

C

B

B^b_{A[#]}

A

A^b_{G[#]}

G

G^b_{F[#]}

F

E

E^b_{D[#]}

D

D^b_{C[#]}

C

↑

To fold

Use a plastic ruler as a support print the sheet in legal size

Cut

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Fig.4b

Couper

Clé universelle musicale

Octave

Couper

Couper

Septième

Couper

Sixième

Quinte

Couper

Couper

Quarte

Tierce

Couper

Seconde

Couper

Tonique

Couper

Solfège

Above the ruler

Universal musical Key

Octave

Cut

Cut

Seventh

Cut

Sixth

Fifth

Cut

Cut

Fourth

Third

Cut

Second

Cut

Tonic

Cut

Solfège

Couper

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Plier

Do

Si

Si^b_{La[#]}

La

La^b_{Sol[#]}

Sol

Sol^b_{Fa[#]}

Fa

Mi

Mi^b_{Ré[#]}

Ré

Ré^b_{Do[#]}

Do

Si

Si^b_{La[#]}

La

La^b_{Sol[#]}

Sol

Sol^b_{Fa[#]}

Fa

Mi

Mi^b_{Ré[#]}

Ré

Ré^b_{Do[#]}

Do

↓

↑

Plier

Utiliser une règle en plastique comme support imprimer la feuille en format légal

Couper

« HDS Tempered scale in Hz and guitar fretboard »

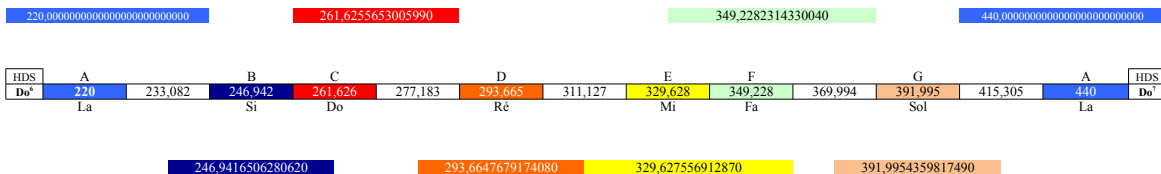
Fig.5

HARMONY OF THE SPHERES

Universal musical Key



HDS tempered scale Hz	440
Progression %	5,94630943592953

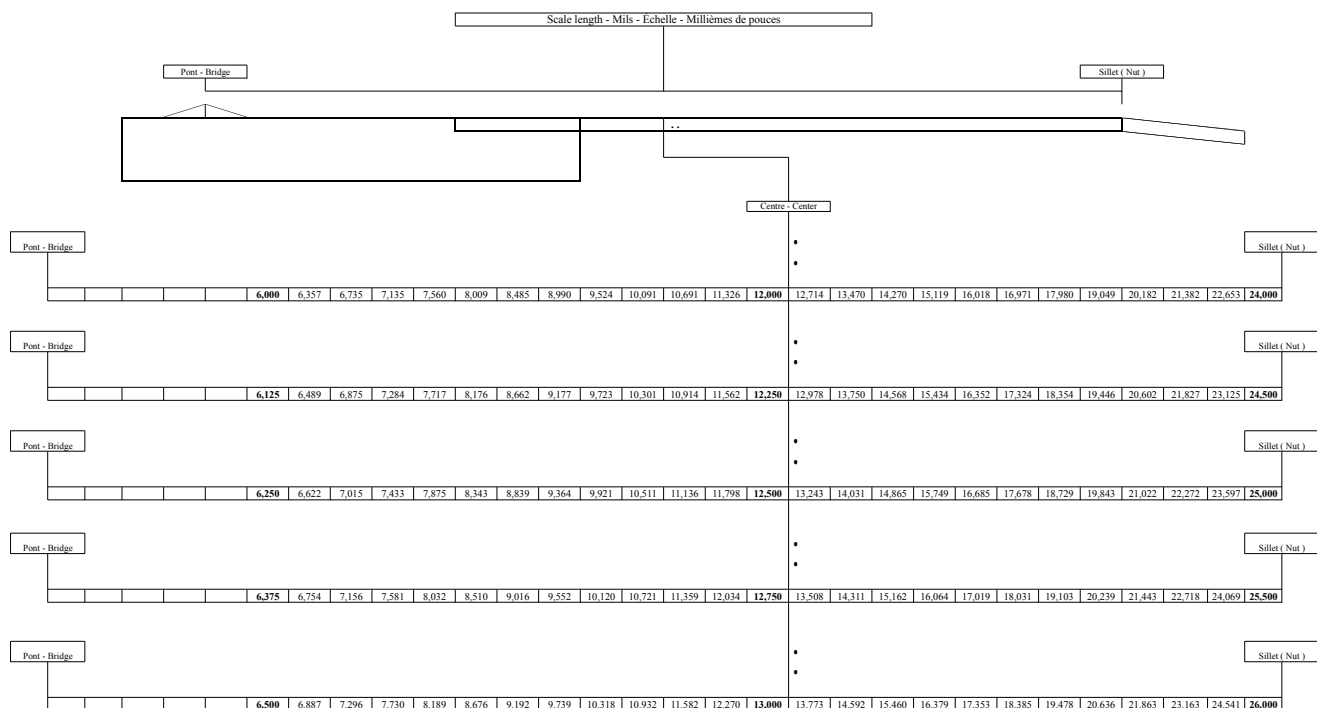


Guitar Fretboard



Two opposites in perfect harmony

Progression %	5,94630943592953
---------------	------------------



Tempered scale and various frequency of A

Fig.5b



HDS temperate scale Hz													
Progression %										5,94630943592953			
HDS	C	D		E		F		G		A	B		C
Do ¹²	16744	17739,688	18794,545	19912,127	21096,164	22350,607	23679,643	25087,708	26579,501	28160	29834,481	31608,531	33488
Do ¹¹	8372	8869,844	9397,273	9956,063	10548,082	11175,303	11839,822	12543,854	13289,750	14080	14917,240	15804,266	16744
Do ¹⁰	4186	4434,922	4698,636	4978,032	5274,041	5587,652	5919,911	6271,927	6644,875	7040	7458,620	7902,133	8372
Do ⁹	2093	2217,461	2349,318	2489,016	2637,020	2793,826	2959,955	3135,963	3322,438	3520	3729,310	3951,066	4186
Do ⁸	1046,50	1108,731	1174,659	1244,508	1318,510	1396,913	1479,978	1567,982	1661,219	1760	1864,655	1975,533	2093
Do ⁷	523,25	554,365	587,330	622,254	659,255	698,456	739,989	783,991	830,609	880	932,328	987,767	1046,50
Do ⁶	261,63	277,1826	293,66	311,13	329,63	349,23	369,99	392,00	415,30	440	466,16	493,88	523,25
Do ⁵	130,81	138,59	146,83	155,56	164,81	174,61	185,00	196,00	207,65	220,00	233,08	246,94	261,63
Do ⁴	65,41	69,30	73,42	77,78	82,41	87,31	92,50	98,00	103,83	110,00	116,54	123,47	130,81
Do ³	32,70	34,65	36,71	38,89	41,20	43,65	46,25	49,00	51,91	55,00	58,27	61,74	65,41
Do ²	16,35	17,32	18,35	19,45	20,60	21,83	23,12	24,50	25,96	27,50	29,14	30,87	32,70
Do ¹	8,18	8,66	9,18	9,72	10,30	10,91	11,56	12,25	12,98	13,75	14,57	15,43	16,35

Champ auditif

440,00000000000000000000000000000000

HDS temperate scale Hz													
Progression %										5,94630943592953			
HDS	C	D		E		F		G		A	B		C
Do ¹²	16820,15	17820,32	18879,97	20002,64	21192,06	22452,20	23787,28	25201,74	26700,32	28288,00	29970,09	31752,21	33640,29
Do ¹¹	8410,07	8910,16	9439,99	10001,32	10596,03	11226,10	11893,64	12600,87	13350,16	14144,00	14985,05	15876,10	16820,15
Do ¹⁰	4205,04	4455,08	4719,99	5000,66	5298,01	5613,05	5946,82	6300,44	6675,08	7072,00	7492,52	7938,05	8410,07
Do ⁹	2102,52	2227,54	2360,00	2500,33	2649,01	2806,53	2973,41	3150,22	3337,54	3536,00	3746,26	3969,03	4205,04
Do ⁸	1051,26	1113,77	1180,00	1250,16	1324,50	1403,26	1486,70	1575,11	1668,77	1768,00	1873,13	1984,51	2102,52
Do ⁷	525,630	556,89	590,00	625,08	662,25	701,63	743,35	787,55	834,38	884,00	936,57	992,26	1051,26
Do ⁶	262,815	278,44	295,00	312,54	331,13	350,82	371,68	393,78	417,19	442	468,28	496,13	525,630
Do ⁵	131,41	139,22	147,50	156,27	165,56	175,41	185,84	196,89	208,60	221,00	234,14	248,06	262,815
Do ⁴	65,70	69,61	73,75	78,14	82,78	87,70	92,92	98,44	104,30	110,50	117,07	124,03	131,41
Do ³	32,85	34,81	36,87	39,07	41,39	43,85	46,46	49,22	52,15	55,25	58,54	62,02	65,70
Do ²	16,43	17,40	18,44	19,53	20,70	21,93	23,23	24,61	26,07	27,63	29,27	31,01	32,85
Do ¹	8,213	8,70	9,22	9,77	10,35	10,96	11,61	12,31	13,04	13,81	14,63	15,50	16,43

Champ auditif

442,00000000000000000000000000000000

HDS temperate scale Hz													
Progression %										5,94630943592953			
HDS	C	D		E		F		G		A	B		C
Do ¹²	16896	17900,96	18965,40	20093,15	21287,95	22553,79	23894,91	25315,78	26821,13	28416	30105,70	31895,88	33793
Do ¹¹	8448	8950,48	9482,70	10046,57	10643,97	11276,90	11947,46	12657,89	13410,57	14208	15052,85	15947,94	16896
Do ¹⁰	4224	4475,24	4741,35	5023,29	5321,99	5638,45	5973,73	6328,94	6705,28	7104	7526,43	7973,97	8448
Do ⁹	2112	2237,62	2370,68	2511,64	2660,99	2819,22	2986,86	3164,47	3352,64	3552	3763,21	3986,99	4224
Do ⁸	1056	1118,81	1185,34	1255,82	1330,50	1409,61	1493,43	1582,24	1676,32	1776	1881,61	1993,49	2112
Do ⁷	528	559,40	592,67	627,91	665,25	704,81	746,72	791,12	838,16	888	940,80	996,75	1056
Do ⁶	264	279,70	296,33	313,96	332,62	352,40	373,36	395,56	419,08	444	470,40	498,37	528
Do ⁵	132	139,85	148,17	156,98	166,31	176,20	186,68	197,78	209,54	222	235,20	249,19	264
Do ⁴	66	69,93	74,08	78,49	83,16	88,10	93,34	98,89	104,77	111	117,60	124,59	132
Do ³	33	34,96	37,04	39,24	41,58	44,05	46,67	49,44	52,39	55,50	58,80	62,30	66
Do ²	16,50	17,48	18,52	19,62	20,79	22,03	23,33	24,72	26,19	27,75	29,40	31,15	33
Do ¹	8,25	8,74	9,26	9,81	10,39	11,01	11,67	12,36	13,10	13,88	14,70	15,57	16,50

Champ auditif

444,00000000000000000000000000000000

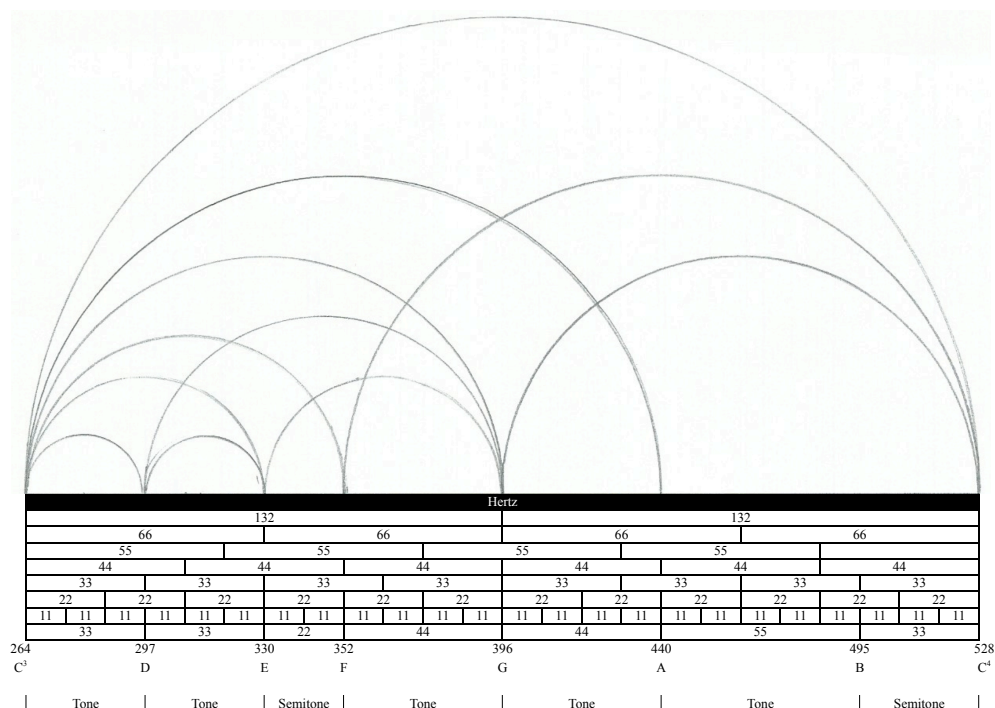
*** For more details on temperate scale see the section R/D

Pythagore and the harmony of the spheres

Fig.7

HARMONY OF THE SPHERES

MUSICAL UNIVERSAL KEY



HDS Universal Proportion

1,125	1,111	1,06666667	1,125	1,111	1,125	1,06666667
1,250	1,250	1,250	1,250	1,250	1,250	1,250
1,500	1,33333333	1,66666667	1,2	1,500	1,250	1,6
1,875	1,06666667					

HDS Fraction Pythagorean

1 1/8	1 1/4	1 1/3	1 1/2	1 2/3	1 7/8	2
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For more details on natural harmonics see the section R/D

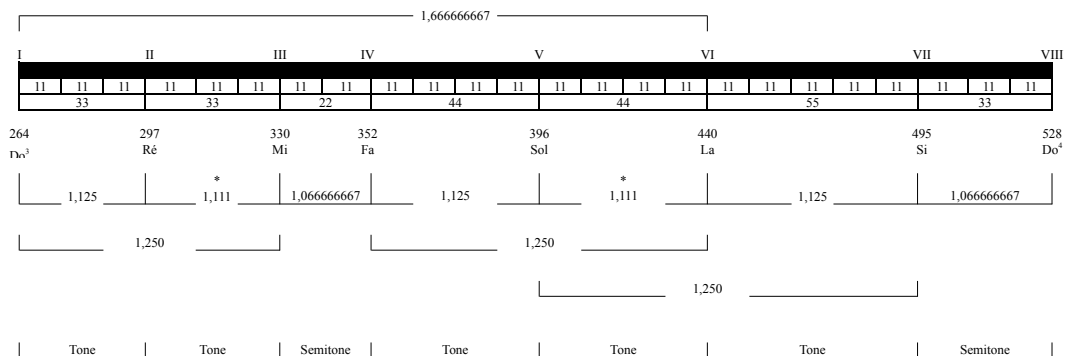
« Natural Harmonics »

Fig.7a



NATURAL HARMONICS

Starting from the fact that the natural resonance (harmonics) of each note are relatively all multiples of each of them and the frequency (Hz) is given by the simple arithmetic operation of fundamental sound F^0 multiplication by the rank number of it



II	X	=
11	1	11
11	2	22
11	3	33
11	4	44
11	5	55
11	6	66
11	7	77
11	8	88
11	9	99
11	10	110
11	11	121
11	12	132
11	13	143
11	14	154
11	15	165
11	16	176
11	17	187
11	18	198
11	19	209
11	20	220
11	21	231
11	22	242
11	23	253

Octave	11	24	264	C	1
	11	25	275		2
	11	26	286		3
Second	11	27	297	D	4
	11	28	308		5
	11	29	319		6
Third	11	30	330	E	7
	11	31	341		8
Fourth	11	32	352	F	9
	11	33	363		10
	11	34	374		11
	11	35	385		12
Fifth	11	36	396	G	13
	11	37	407		14
	11	38	418		15
	11	39	429		16
Sixth	11	40	440	A	17
	11	41	451		18
	11	42	462		19
	11	43	473		20
	11	44	484		21
Seventh	11	45	495	B	22
	11	46	506		23
	11	47	517		24
Octave	11	48	528	C	25

For more details on natural harmonics see figures 6 and 7 section R/D

Note that the ratio between A 440 Hz and C 264 Hz has a proportion of

$$1.666666666666667$$

$$\text{either: } 440/264 = 1.666666666666667$$

this proportion will never change ... whatever the frequency chosen:

$$\dots 328 - 426,7 - 432 - 440 - 442 - 444 \dots$$

it's a good way to find your C

then divide it by 24 to get what I call the unit of measure.

P: S. The tuning frequency of A at 426.7 Hz also called Scientific range
or Range of physicists, with a Do at 256 Hz

$$\text{either : } 426.6666666666667 / 256 = 1.666666666666667.$$

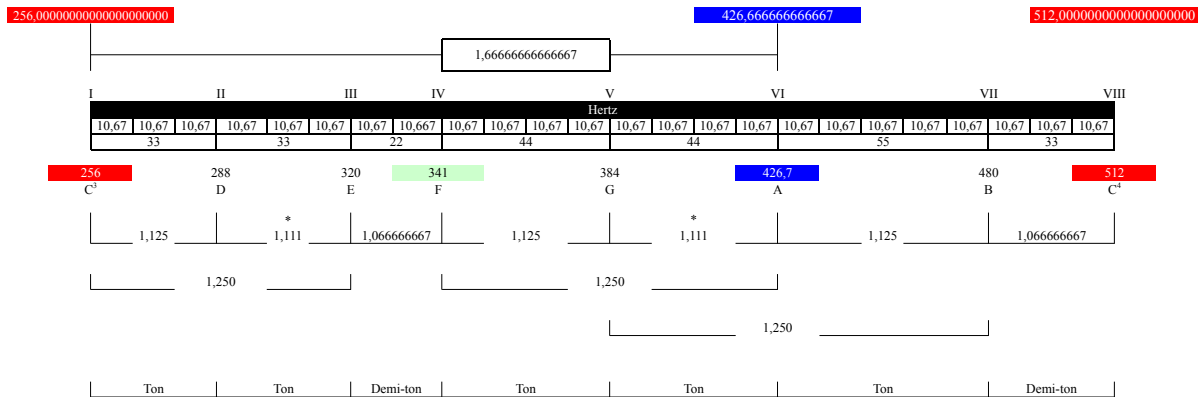
Fig.7f



NATURAL HARMONICS

426,7 Hz

Starting from the fact that the natural resonance (harmonics) of each note are relatively all multiples of each of them and the frequency (Hz) is given by the simple arithmetic operation of fundamental sound F0 multiplication by the rank number of it



10,6666666666667				
	10,67	X	=	
	10,67	1	10,67	
	10,67	2	21,33	
	10,67	3	32	
	10,67	4	42,67	
	10,67	5	53,33	
	10,67	6	64	
	10,67	7	74,67	
	10,67	8	85,33	
	10,67	9	96	
	10,67	10	106,7	
	10,67	11	117,3	
	10,67	12	128	
	10,67	13	138,7	
	10,67	14	149,3	
	10,67	15	160	
	10,67	16	170,7	
	10,67	17	181,3	
	10,67	18	192	
	10,67	19	202,7	
	10,67	20	213,3	
	10,67	21	224	
	10,67	22	234,7	
	10,67	23	245,3	
Octave	10,67	24	256	C 1
	10,67	25	266,7	2
Seconde	10,67	26	277,3	3
	10,67	27	288	D 4
	10,67	28	298,7	5
	10,67	29	309,3	6
Tierce	10,67	30	320	E 7
	10,67	31	330,7	8
	10,67	32	341,3	F 9
Quarte	10,67	33	352	10
	10,67	34	362,7	11
	10,67	35	373,3	12
Quinte	10,67	36	384	G 13
	10,67	37	394,7	14
	10,67	38	405,3	15
Sixième	10,67	39	416	16
	10,67	40	426,7	A 17
	10,67	41	437,3	18
	10,67	42	448	19
	10,67	43	458,7	20
	10,67	44	469,3	21
	10,67	45	480	B 22
Septième	10,67	46	490,7	23
	10,67	47	501,3	24
	10,67	48	512	C 25

For more details on natural harmonics see figures 6 and 7 section R/D

Fig.7H



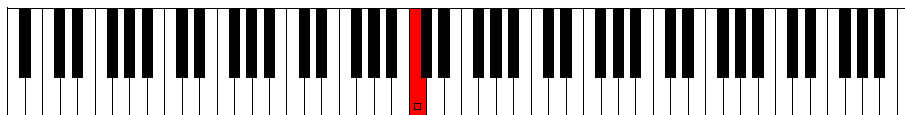
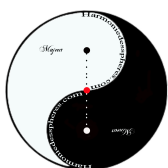
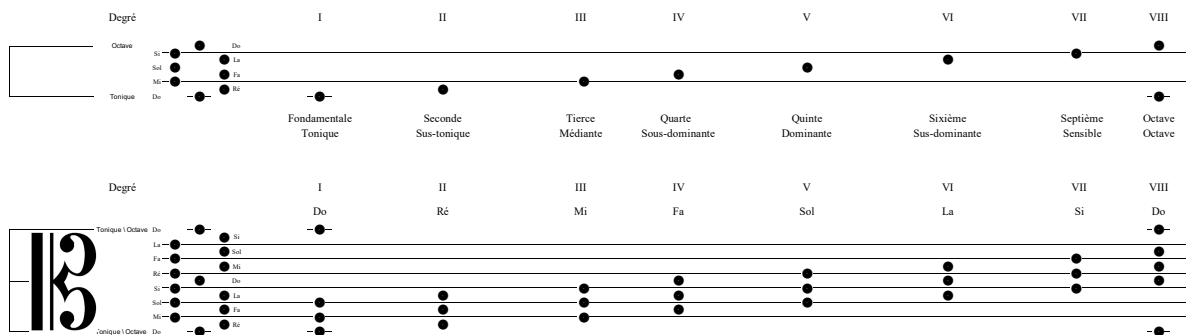
LES HARMONIQUES NATURELLES - NATURAL HARMONICS

F										C										G										D									
Fa										Do										Sol										Ré									
302										264										391,11										293,13									
1	14,6666667	1	14,6666667	1	11	11	11	11	11	1	11	11	11	11	11	11	11	11	11	1	16,2962963	1	16,2962963	1	16,2962963	1	16,2962963	1	12,2222222	1	12,2222222	1	12,2222222						
2	29,3333333	2	29,3333333	2	22	22	22	22	22	2	22	22	22	22	22	22	22	22	22	2	32,5925926	2	32,5925926	2	32,5925926	2	32,5925926	2	24,4444444	2	24,4444444	2	24,4444444						
3	44	3	44	3	33	33	33	33	33	3	33	33	33	33	33	33	33	33	33	3	48,8888889	3	48,8888889	3	48,8888889	3	48,8888889	3	36,6666667	3	36,6666667	3	36,6666667						
4	58,6666667	4	58,6666667	4	44	44	44	44	44	4	44	44	44	44	44	44	44	44	44	4	64,4444444	4	64,4444444	4	64,4444444	4	64,4444444	4	48	4	48	4	48						
5	73,3333333	5	73,3333333	5	55	55	55	55	55	5	55	55	55	55	55	55	55	55	55	5	81,1111111	5	81,1111111	5	81,1111111	5	81,1111111	5	61,1111111	5	61,1111111	5	61,1111111						
6	88	6	88	6	66	66	66	66	66	6	66	66	66	66	66	66	66	66	66	6	97,7777778	6	97,7777778	6	97,7777778	6	97,7777778	6	73,3333333	6	73,3333333	6	73,3333333						
7	102,6666667	7	102,6666667	7	77	77	77	77	77	7	77	77	77	77	77	77	77	77	77	7	114,6740741	7	114,6740741	7	114,6740741	7	114,6740741	7	85,5555556	7	85,5555556	7	85,5555556						
8	117,3333333	8	117,3333333	8	88	88	88	88	88	8	88	88	88	88	88	88	88	88	88	8	130,5707074	8	130,5707074	8	130,5707074	8	130,5707074	8	97,7777778	8	97,7777778	8	97,7777778						
9	132	9	132	9	99	99	99	99	99	9	99	99	99	99	99	99	99	99	99	9	146,6666667	9	146,6666667	9	146,6666667	9	146,6666667	9	109	9	109	9	109						
10	146,6666667	10	146,6666667	10	110	110	110	110	110	10	110	110	110	110	110	110	110	110	110	10	162,962963	10	162,962963	10	162,962963	10	162,962963	10	122,2222222	10	122,2222222	10	122,2222222						
11	161,3333333	11	161,3333333	11	121	121	121	121	121	11	121	121	121	121	121	121	121	121	121	11	179,2592593	11	179,2592593	11	179,2592593	11	179,2592593	11	134,4444444	11	134,4444444	11	134,4444444						
12	176	12	176	12	132	132	132	132	132	12	132	132	132	132	132	132	132	132	132	12	195,5555556	12	195,5555556	12	195,5555556	12	195,5555556	12	146,6666667	12	146,6666667	12	146,6666667						
13	190,6666667	13	190,6666667	13	143	143	143	143	143	13	143	143	143	143	143	143	143	143	143	13	214,4444444	13	214,4444444	13	214,4444444	13	214,4444444	13	183,3333333	13	183,3333333	13	183,3333333						
14	205,3333333	14	205,3333333	14	154	154	154	154	154	14	154	154	154	154	154	154	154	154	154	14	238,1481481	14	238,1481481	14	238,1481481	14	238,1481481	14	171,1111111	14	171,1111111	14	171,1111111						
15	220	15	220	15	165	165	165	165	165	15	165	165	165	165	165	165	165	165	165	15	264,4444444	15	264,4444444	15	264,4444444	15	264,4444444	15	183,3333333	15	183,3333333	15	183,3333333						
16	234,6666667	16	234,6666667	16	176	176	176	176	176	16	176	176	176	176	176	176	176	176	176	16	286,7407407	16	286,7407407	16	286,7407407	16	286,7407407	16	195,5555556	16	195,5555556	16	195,5555556						
17	249,3333333	17	249,3333333	17	187	187	187	187	187	17	187	187	187	187	187	187	187	187	187	17	317,0740741	17	317,0740741	17	317,0740741	17	317,0740741	17	207,7777778	17	207,7777778	17	207,7777778						
18	264	18	264	18	198	198	198	198	198	18	198	198	198	198	198	198	198	198	198	18	339,3333333	18	339,3333333	18	339,3333333	18	339,3333333	18	228	18	228	18	228						
19	279,6666667	19	279,6666667	19	209	209	209	209	209	19	209	209	209	209	209	209	209	209	209	19	369,6296296	19	369,6296296	19	369,6296296	19	369,6296296	19	238,1481481	19	238,1481481	19	238,1481481						
20	293,3333333	20	293,3333333	20	220	220	220	220	220	20	220	220	220	220	220	220	220	220	220	20	392,9259259	20	392,9259259	20	392,9259259	20	392,9259259	20	244,4444444	20	244,4444444	20	244,4444444						
21	308	21	308	21	231	231	231	231	231	21	231	231	231	231	231	231	231	231	231	21	423,2222222	21	423,2222222	21	423,2222222	21	423,2222222	21	264,6666667	21	264,6666667	21	264,6666667						
22	322,6666667	22	322,6666667	22	242	242	242	242	242	22	242	242	242	242	242	242	242	242	242	22	446,6666667	22	446,6666667	22	446,6666667	22	446,6666667	22	286,8888889	22	286,8888889	22	286,8888889						
23	337,3333333	23	337,3333333	23	253	253	253	253	253	23	253	253	253	253	253	253	253	253	253	23	470,8148148	23	470,8148148	23	470,8148148	23	470,8148148	23	296,1111111	23	296,1111111	23	296,1111111						
24	352	24	352	24	264	264	264	264	264	24	264	264	264	264	264	264	264	264	264	24	494,1111111	24	494,1111111	24	494,1111111	24	494,1111111	24	293,3333333	24	293,3333333	24	293,3333333						
25	366,6666667	25	366,6666667	25	275	275	275	275	275	25	275	275	275	275	275	275	275	275	275	25	518,2592593	25	518,2592593	25	518,2592593	25	518,2592593	25	305,5555556	25	305,5555556	25	305,5555556						
26	381,3333333	26	381,3333333	26	286	286	286	286	286	26	286	286	286	286	286	286	286	286	286	26	542,3074074	26	542,3074074	26	542,3074074	26	542,3074074	26	317,7777778	26	317,7777778	26	317,7777778						
27	396	27	396	27	297	297	297	297	297	27	297	297	297	297	297	297	297	297	297	27	566,4444444	27	566,4444444	27	566,4444444	27	566,4444444	27	330	27	330	27	330						
28	410,6666667	28	410,6666667	28	308	308	308	308	308	28	308	308	308	308	308	308	308	308	308	28	590,5555556	28	590,5555556	28	590,5555556	28	590,5555556	28	342,2222222	28	342,2222222	28	342,2222222						
29	425,3333333	29	425,3333333	29	319	319	319	319	319	29	319	319	319	319	319	319	319	319	319	29	614,6666667	29	614,6666667	29	614,6666667	29	614,6666667	29	354,4444444	29	354,4444444	29	354,4444444						
30	440	30	440	30	330	330	330	330	330	30	330	330	330	330	330	330	330	330	330	30	638,8148148	30	638,8148148	30	638,8148148	30	638,8148148	30	366,6666667	30	366,6666667	30	366,6666667						
31	454,6666667	31	454,6666667	31	341	341	341	341	341	31	341	341	341	341	341	341	341	341	341	31	662,962963	31	662,962963	31	662,962963	31	662,962963	31	378,8888889	31	378,8888889	31	378,8888889						
32	469,3333333	32	469,3333333	32	352	352	352	352	352	32	352	352	352	352	352	352	352	352	352	32	687,1111111	32	687,1111111	32	687,1111111	32	687,1111111	32	390	32	390	32	390						
33	484	33	484	33	363	363	363	363	363	33	363	363	363	363	363	363	363	363	363	33	711,2592593	33	711,2592593	33	711,2592593	33	711,2592593	33	403,3333333	33	403,3333333	33	403,3333333						
34	498,6666667	34	498,6666667	34	374	374	374	374	374	34	374	374	374	374	374	374	374	374	374	34	735,4074074	34	735,4074074																

Fig.8

Harmonie des sphères

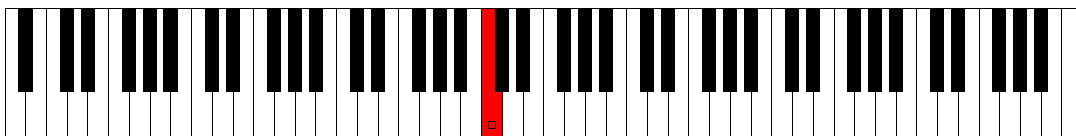
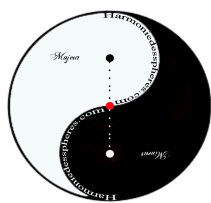
Clé universelle musicale
Le Diatonisme



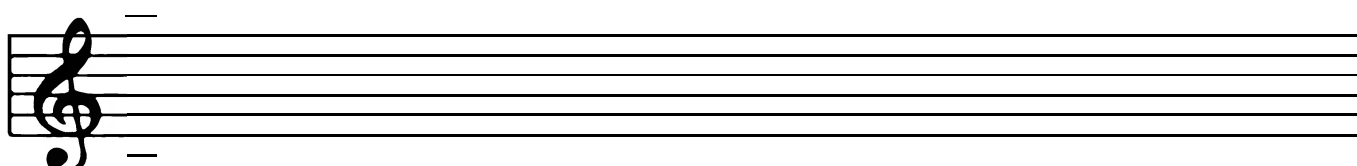
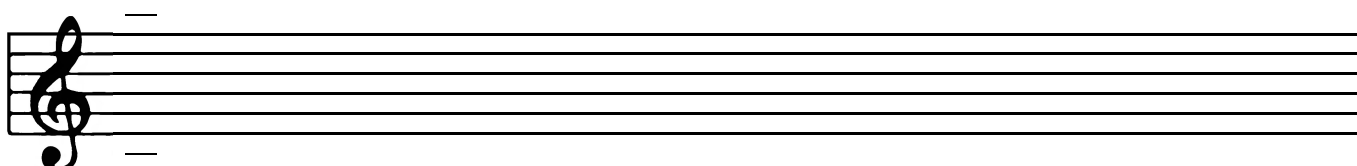
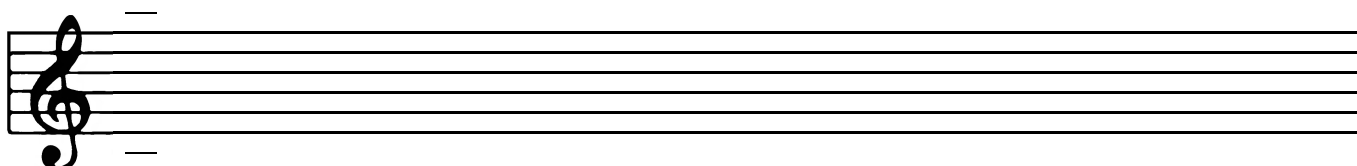
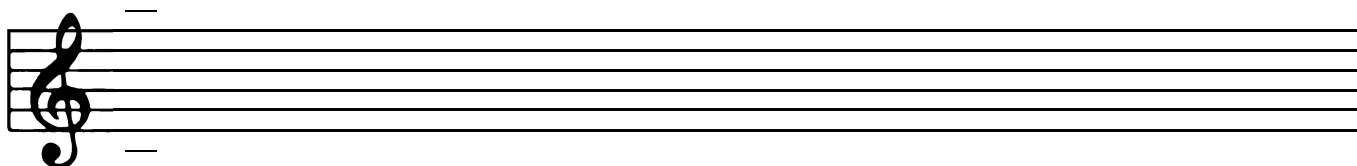
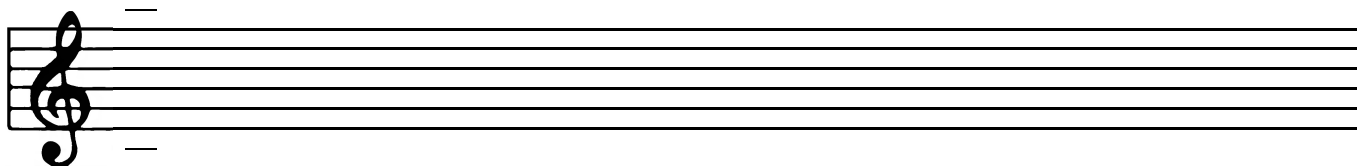
Le premier Solfège

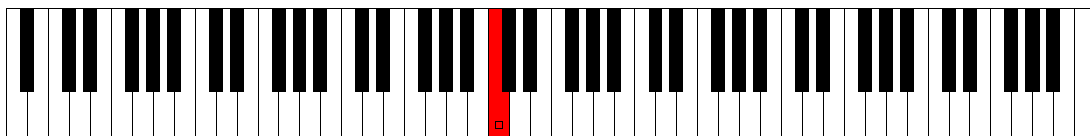
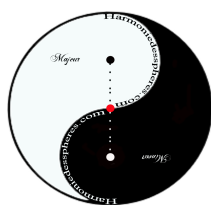
Titre: _____ Auteur: _____

Handwriting practice lines for musical notation. Each line is labeled with a letter (C, B, A, G, F, E, D, C) and has a corresponding musical staff.



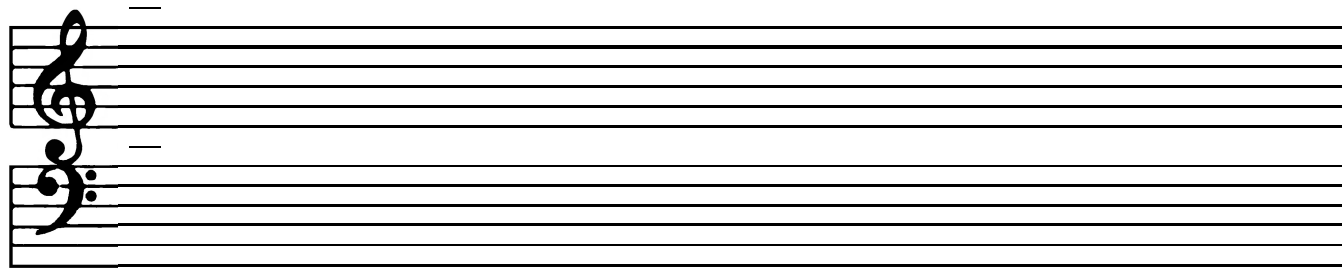
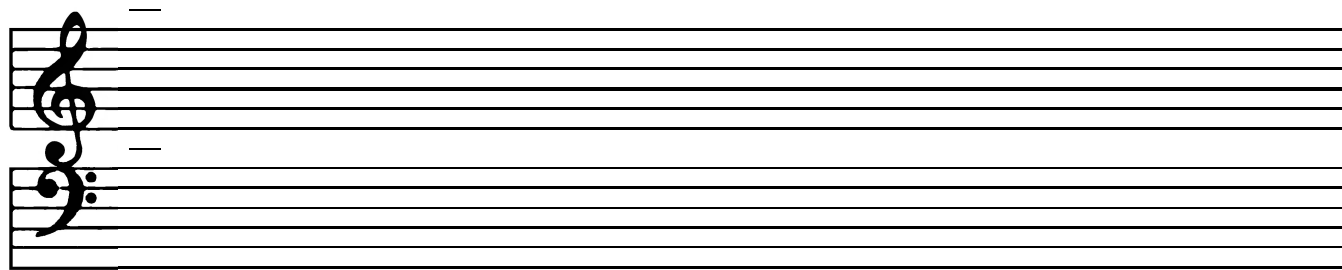
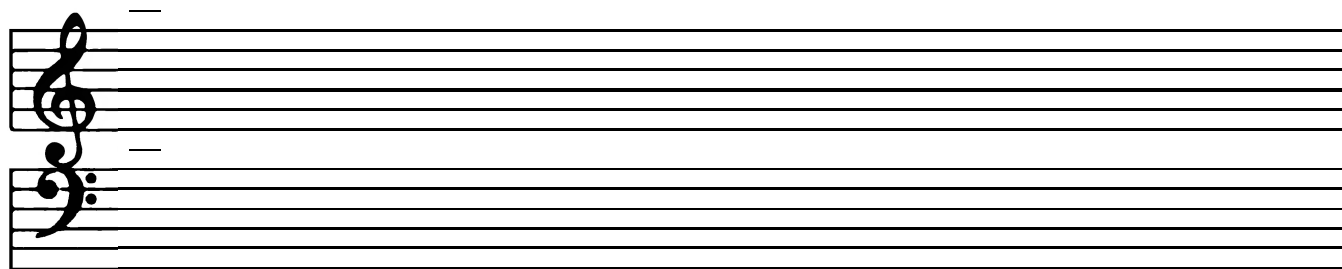
Titre: _____ Auteur: _____





Titre: _____

Auteur: _____



Harmonie des sphères inc.

Mission

Promote the universal musical key throughout the world,
research and develop simple and accessible applications
to all, in order to facilitate the understanding of musical notions.

« Music it's of space-time »

Sylvain Lalonde founding president :
Harmonie des sphères **inc.** / harmoniedesspheres.com

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In memory of an exceptional mind

« Life is not a mystery but an unrevealed science »

« So that you will recognize yourself an intelligence formerly veiled »

« The Genesis of reality, B de M p.769 »

<https://bdm.place>

Last update: 13 July 2026