The Pattern Pieces

Folder A

The Pattern Notation

Pictographic Representation of the Pattern Models.

The Pattern Science is a unified science of nature and Scripture, described on *thepatternscience.com.*

The Pattern Science Diamond illustrates the three-tier method of the Pattern Science. Divided into distinct layers, it reveals both scope and composition: beginning with the *Principle of Patterning* at the top, continuing through the *Method of Modeling* in the middle, and culminating in the *Truth of Testing* at the bottom. The Method of Modeling employs geometric models to explain both natural and biblical phenomena.

The Pattern Notation standardizes and simplifies the way different types of models in the Pattern Science are described. It provides a system of icons, mainly for the structural components of the cubes, derived from the geometries of the Pattern cube's component parts. These symbols are collectively referred to as *the Pattern pictographics*.

This document includes *the Pattern Schema*, the value sequences of the Pattern equations, their icons and pictographics, their geometric structures as well as two field maps. The schema diagram depicts the fundamental *duonity-disduonity* split at the heart of the Pattern. It shows the development of the two types of generic Pattern cubes and lists their respective specific Pattern cubes, now referred to as unification cubes or uni-cubes, that correspond to natural phenomena.

This folder contains notation improvements, the most important of which are:

- The basic cube referred to in current documents is now no longer classified as a single cube but as a "cluster of blocks", for example. This change ensures consistency with the term "cluster of spheres", for example.
- The fill-term (previously 'filler-term') doublet icons are shown separately from the main doublet icons, making differences easier to distinguish. As a result, special icons (such as those for the Pythagoras modules used in *Folder 18 The Pattern Cube*) are no longer necessary.
- The fill-term value sequences have been converted to sequences that reflect their sub-acceleration nature.

While the simplicity of the Pattern approach may sometimes appear obscured by the multiplicity of geometric objects and their sub-assemblies, the numerous illustrations of the Pattern's models are essential. They reveal the intricate structures - even if they contribute to a perception of complexity.

The central idea of creation is simple; there is a Pattern behind it all.

Folder A The Pattern Notation was published in *thepatternbook.com* on 15 April 2026.

The Pattern Schema

The Pattern Schema illustrates the match between the Pattern idea and Frank Wilczek's ideal for a final theory.

"Ever more compressed, profoundly simple equations to start, ever more complex calculations to unfold them, ever richer output that the world turns out to match." Frank Wilczek in *The Lightness of Being*, published by Allen Lane.

The *profoundly simple* Pattern *equations*, and their values, are:

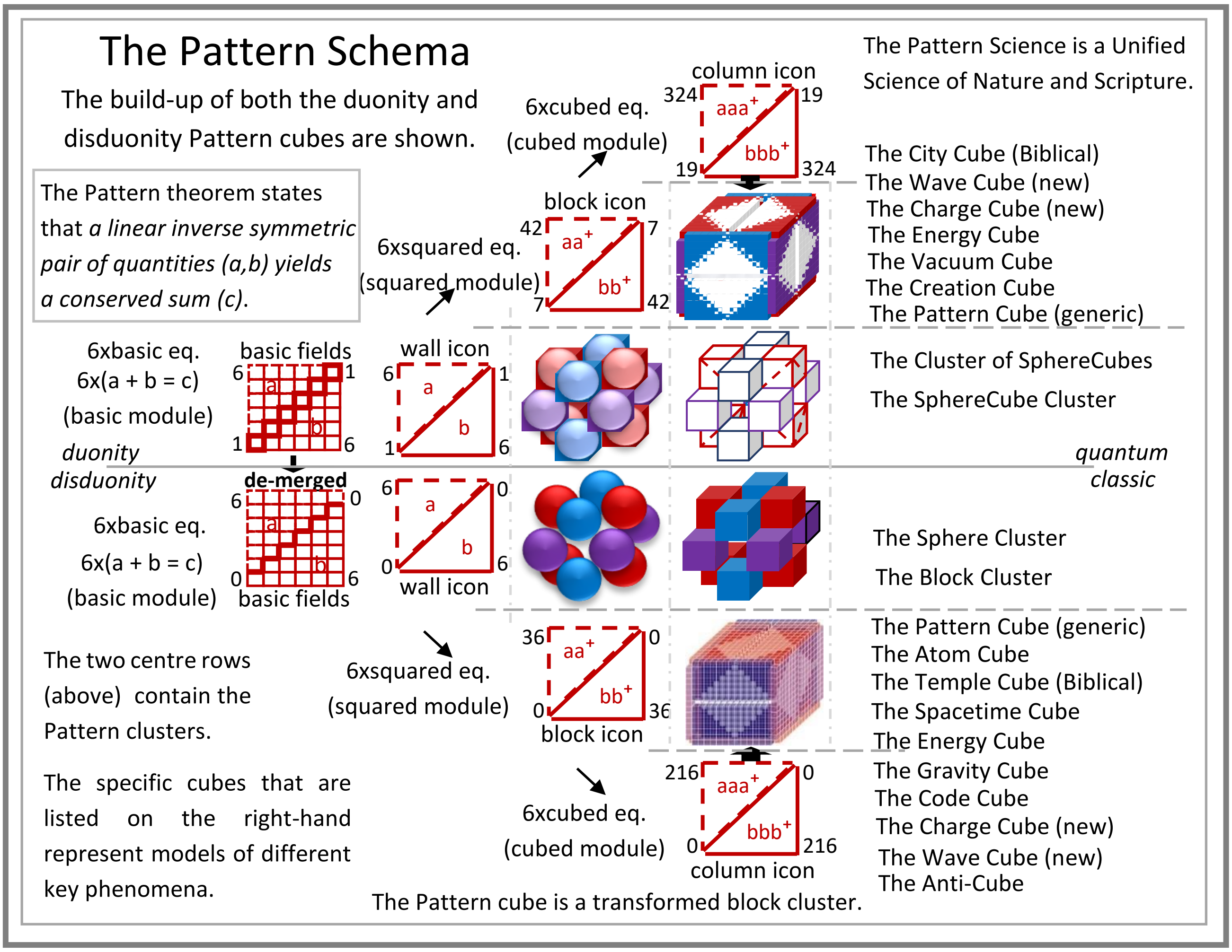
The zero Pattern equation pair:	$(a + b)^0 = c^0$ & $c^0 = (b + a)^0$	zero pn6 pair
The basic Pattern equation pair:	$(a + b)^1 = c^1$ & $c^1 = (b + a)^1$	basic pn6 pair
The squared Pattern equation pair:	$(a + b)^2 = c^2$ & $c^2 = (b + a)^2$	squared pn6 pair
The cubed Pattern equation pair:	$(a + b)^3 = c^3$ & $c^3 = (b + a)^3$	cubed pn6 pair

The duonity value sequences are: a = 6,5,4,3,2,1 and b = 1,2,3,4,5,6

The disduonity value sequences are: a = 6,5,4,3,2,1,0 and b = 0,1,2,3,4,5,6

The Pattern *outputs* are the cluster and cube structures that emerge from the number sequences of the basic, squared, and cubed equation terms (see the diagram below).

The specific cubes of the Pattern cube that *the world turns out to match* are listed on the right-hand side of the diagram.



Classification Criteria for the Pattern Cubes

The Pattern cubes listed in the diagram above (on the right) are classified according to their key properties. These criteria are:

Generic or Specific	Specific cubes are instances of generic cubes that match natural and biblical phenomena.
Basic or Squared	Distinguishes between cubes derived from basic modules and those from squared modules.
Duonity or Disduonity	Indicates whether the Pattern structures are merged (superpositioned) or de-merged.
Linear or Nonlinear	Linear cubes consist of all cube components, while nonlinear cubes lack some components.
Noncompact or Compact	Indicates the absence (noncompact) or presence (compact) of a cover for the cube.

The Pattern Algebraics: Disduonity

The Pattern structures are fundamentally divided into two types: *duonity* and *disduonity*. Duonity is the superposed "two-oneness" of things, where elements are merged into a unified structure. Disduonity is the collapsed "two-ness" of things where elements are separated. The distinction between duonity and disduonity is determined by the values for the equation variables. The disduonity value sequences contain zeros, while duonity value sequences are defined by values without zeros.

The Basic Module Pair (7x $(a + b)^1$ Pair)

Left Module (main doublet) / (main doublet) Right Module

$(a + b)^1 = c^1$ > **a + b = c** & **c = b + a** < $c^1 = (b + a)^1$

Disduonity values / Disduonity values

a = 6, b = 0:	6 + 0	= 6	& 6 =	0 + 6	:b = 0, a = 6	Layer 1
a = 5, b = 1:	5 + 1	= 6	& 6 =	1 + 5	:b = 1, a = 5	Layer 2
a = 4, b = 2:	4 + 2	= 6	& 6 =	2 + 4	:b = 2, a = 4	Layer 3
a = 3, b = 3:	3 + 3	= 6	& 6 =	3 + 3	:b = 3, a = 3	Layer 4
a = 2, b = 4:	2 + 4	= 6	& 6 =	4 + 2	:b = 4, a = 2	Layer 5
a = 1, b = 5:	1 + 5	= 6	& 6 =	5 + 1	:b = 5, a = 1	Layer 6
a = 0, b = 6:	0 + 6	= 6	& 6 =	6 + 0	:b = 6, a = 0	Layer 7

Disduonity Sequences

The basic Pattern equation pair, Along with its disduonity values, is derived from the Pattern code, which itself originates from the Pattern cluster (see bottom).

The numerical values of the Pattern code are substituted into the variables *a* and *b* of the different equation pairs. The number sequences generated by the various Pattern equation terms are then geometrized to produce cellular fields and their geometric "brick" manifestations.

The Squared Module Pair (7x $(a + b)^2$ Pair)

Left Module (main doublet; fill doublet) / (main doublet; fill doublet) Right Module

$(a + b)^2 = c^2$ > **aa + ab + ba + bb = cc** & **cc = bb + ba + ab + aa** < $c^2 = (b + a)^2$

Disduonity values / Disduonity values

a = 6, b = 0:	36	+ 0	+ 0	+ 0	= 36 & 36 =	0	+ 0	+ 0	+ 36	:b = 0, a = 6	Layer 1
a = 5, b = 1:	25	+ 5	+ 5	+ 1	= 36 & 36 =	1	+ 5	+ 5	+ 25	:b = 1, a = 5	Layer 2
a = 4, b = 2:	16	+ 8	+ 8	+ 4	= 36 & 36 =	4	+ 8	+ 8	+ 16	:b = 2, a = 4	Layer 3
a = 3, b = 3:	9	+ 9	+ 9	+ 9	= 36 & 36 =	9	+ 9	+ 9	+ 9	:b = 3, a = 3	Layer 4
a = 2, b = 4:	4	+ 8	+ 8	+ 16	= 36 & 36 =	16	+ 8	+ 8	+ 4	:b = 4, a = 2	Layer 5
a = 1, b = 5:	1	+ 5	+ 5	+ 25	= 36 & 36 =	25	+ 5	+ 5	+ 1	:b = 5, a = 1	Layer 6
a = 0. b = 6:	0	+ 0	+ 0	+ 36	= 36 & 36 =	36	+ 0	+ 0	+ 0	:b = 6, a = 0	Layer 7

Left Module Fill Terms

Non-transformed ab	Non-transformed ba	>	Transformed ab	Transformed ba
0	0		0	0
5	5		1	1
8	8		3	3
9	9		6	6
8	8		10	10
5	5		15	15
0	0		0	0

The Cubed Module Pair (7x $(a + b)^3$ Pair)

Left Module (main doublet; fill doublet) / (main doublet; fill doublet) Right Module

$(a + b)^3 = c^3$ > **aaa + 3aab + 3abb + bbb = ccc** & **ccc = bbb + 3bba + 3baa + aaa** < $c^3 = (b + a)^3$

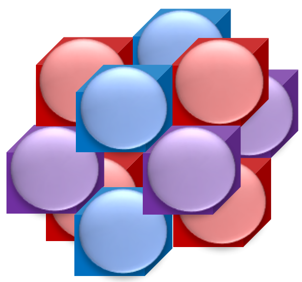
Disduonity values / Disduonity values

a = 6, b = 0:	216	+ 0	+ 0	+ 0	= 216 & 216 =	0	+ 0	+ 0	+ 216	:b = 0, a = 6	Layer 1
a = 5, b = 1:	125	+ 75	+ 15	+ 1	= 216 & 216 =	1	+ 15	+ 75	+ 125	:b = 1, a = 5	Layer 2
a = 4, b = 2:	64	+ 96	+ 48	+ 8	= 216 & 216 =	8	+ 48	+ 96	+ 64	:b = 2, a = 4	Layer 3
a = 3, b = 3:	27	+ 81	+ 81	+ 27	= 216 & 216 =	27	+ 81	+ 81	+ 27	:b = 3, a = 3	Layer 4
a = 2, b = 4:	8	+ 48	+ 96	+ 64	= 216 & 216 =	64	+ 96	+ 48	+ 8	:b = 4, a = 2	Layer 5
a = 1, b = 5:	1	+ 15	+ 75	+ 125	= 216 & 216 =	125	+ 75	+ 15	+ 1	:b = 5, a = 1	Layer 6
a = 0. b = 6:	0	+ 0	+ 0	+ 216	= 216 & 216 =	216	+ 0	+ 0	+ 0	:b = 6, a = 0	Layer 7

Left Module Fill Terms
Transformed Terms Only

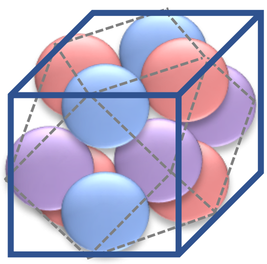
aab	abb
0	0
1	1
5	5
14	14
30	30
55	55
0	0

The Cluster of SphereCubes



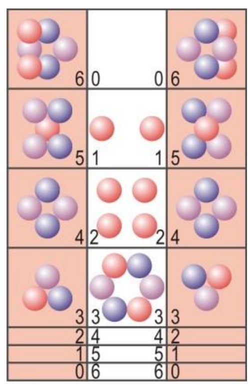
The cluster of spheres represents one of the two "shadows" of the cluster of spherecubes (left). By slicing the cluster of spheres at different angles, one can obtain sets of sphere configurations that correspond to the rows in the Pattern code table.

The Cluster of Spheres



Cubocthahedron-shaped

The Pattern Code



The Pattern Equation Pair a + b = c & c = b + a

The Pattern Algebraics: Duonity

The duonity number values (integer values without zeros), which are substituted into the variables of the different equation pairs, are listed on this page. The duonity state – interpreted as "two-oneness" – can be compared to a type of superposition that requires an additional space dimension. The introduction of this extra dimension allows objects, such as a 2D Mobius band, to acquire unusual properties and capabilities not possible within their original dimensional constraints.

The Basic Module Pair (6x $(a + b)^1$ Pair)

Left Module: $(a + b)^1 = c^1$ > **a + b = c** (main doublet: a + b) & Right Module: **c = b + a** (main doublet: b + a) < $c^1 = (b + a)^1$

duonity values					&					duonity values	
a = 6, b = 1:	6	+ 1	= 7		&	7 =	1	+ 6		:b = 1, a = 6	Layer 1
a = 5, b = 2:	5	+ 2	= 7		&	7 =	2	+ 5		:b = 2, a = 5	Layer 2
a = 4, b = 3:	4	+ 3	= 7		&	7 =	3	+ 4		:b = 3, a = 4	Layer 3
a = 3, b = 4:	3	+ 4	= 7		&	7 =	4	+ 3		:b = 4, a = 3	Layer 4
a = 2, b = 5:	2	+ 5	= 7		&	7 =	5	+ 2		:b = 5, a = 2	Layer 5
a = 1, b = 6:	1	+ 6	= 7		&	7 =	6	+ 1		:b = 6, a = 1	Layer 6

The Pattern Hierarchy

The hierarchy of the Pattern equations consists of equation pair raised to the power of zero, one, two and, three. Although the equation raised to the power of zero is seldomly used, it remains an important member of the Pattern hierarchy because it represents the unit origin of all motion and radiation.

The transformed number sequences of the fill terms (shown below) are derived from the geometrized structures of the original number sequences.

The Squared Module Pair (6x $(a + b)^2$ Pair)

Left Module: $(a + b)^2 = c^2$ > **aa + ab + ba + bb = cc** (main doublet: aa … bb; fill doublet: ab + ba) & Right Module: **cc = bb + ba + ab + aa** (main doublet: bb … aa; fill doublet: ba + ab) < $c^2 = (b + a)^2$

duonity values	aa	ab	ba	bb	cc	&	cc	bb	ba	ab	aa	duonity values	
a = 6, b = 1:	36	+ 6	+ 6	+ 1	= 49	&	49 =	0	+ 6	+ 6	+ 36	:b = 1, a = 6	Layer 1
a = 5, b = 2:	25	+ 10	+ 10	+ 4	= 49	&	49 =	1	+ 10	+ 10	+ 25	:b = 2, a = 5	Layer 2
a = 4, b = 3:	16	+ 12	+ 12	+ 9	= 49	&	49 =	4	+ 12	+ 12	+ 16	:b = 3, a = 4	Layer 3
a = 3, b = 4:	9	+ 12	+ 12	+ 16	= 49	&	49 =	9	+ 12	+ 12	+ 9	:b = 4, a = 3	Layer 4
a = 2, b = 5:	4	+ 10	+ 10	+ 25	= 49	&	49 =	16	+ 10	+ 10	+ 4	:b = 5, a = 2	Layer 5
a = 1, b = 6:	1	+ 6	+ 6	+ 36	= 49	&	49 =	25	+ 6	+ 6	+ 1	:b = 6, a = 1	Layer 6

Left Module Fill Terms

Non-transformed		Transformed	
ab	**ba**	**ab**	**ba**
6	6	1	1
10	10	3	3
12	12	6	6
12	12	10	10
10	10	15	15
6	6	21	21

The Cubed Module Pair (6x $(a + b)^3$ Pair)

Left Module: $(a + b)^3 = c^3$ > **aaa + 3aab + 3abb + bbb = ccc** (main doublet: aaa … bbb; fill doublet: 3aab + 3abb) & Right Module: **ccc = bbb + 3bba + 3baa + aaa** (main doublet: bbb … aaa; fill doublet: 3bba + 3baa) < $c^3 = (b + a)^3$

duonity values	aaa	3aab	3abb	bbb	ccc	&	ccc	bbb	3bba	3baa	aaa	duonity values	
a = 6, b = 1:	216	+ 108	+ 18	+ 1	= 343	&	343 =	1	+ 18	+ 108	+ 216	:b = 0, a = 6	Layer 1
a = 5, b = 2:	125	+ 150	+ 60	+ 8	= 343	&	343 =	8	+ 60	+ 150	+ 125	:b = 1, a = 5	Layer 2
a = 4, b = 3:	64	+ 144	+ 108	+ 27	= 343	&	343 =	27	+ 108	+ 144	+ 64	:b = 2, a = 4	Layer 3
a = 3, b = 4:	27	+ 108	+ 144	+ 64	= 343	&	343 =	64	+ 144	+ 108	+ 27	:b = 3, a = 3	Layer 4
a = 2, b = 5:	8	+ 60	+ 150	+ 125	= 343	&	343 =	125	+ 150	+ 60	+ 8	:b = 4, a = 2	Layer 5
a = 1, b = 6:	1	+ 18	+ 108	+ 216	= 343	&	343 =	216	+ 108	+ 18	+ 1	:b = 5, a = 1	Layer 6

Left Module Fill Terms
Transformed Terms Only

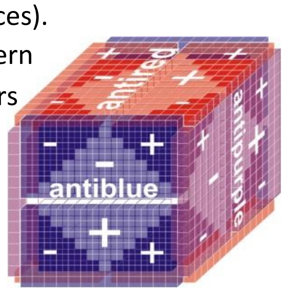
aab	**abb**
1	1
5	5
14	14
30	30
55	55
91	91

The Pattern State Identity (PSI)

The PSI system for the identifying the cells of the disduonity Pattern cube is based on four coordinates **[c, n, s, m]**. Pattern state number **c** represents colour, **n** denotes the energy level, **s** corresponds to the shape as well as spin (with spin indicated by the sign of **s**) and **m** measures the distance of a cell from the middle row of a layer of cells (where **m** = 0). A comparison between the standard four quantum numbers and the Pattern state numbers is provided below. The cube illustration shows the signs associated with the values of **s** and **m** (with **m** located at the vertices).

The Pattern State Numbers		**The Quantum Numbers**	
Colour of pyramids	**c**	None	
Layers of pyramids	**n**	**n**	(energy level)
Shape and spin of cells	**s**	**l** and **s**	(orbital shape and spin)
Deviation (from middle)	**m**	**m**	(magnetic number)

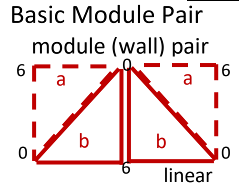
Signs of Pattern state numbers **s** and **m**



The Pattern Pictographics

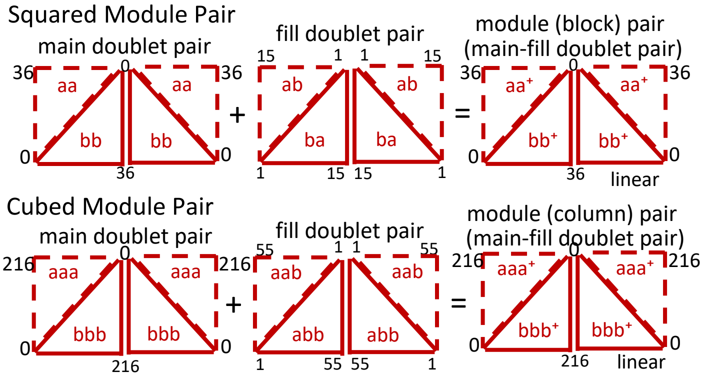
The Pattern pictographics system is composed of symbols (icons) used to represent different Pattern structures. These structures include number sequences, conical field arrays, and geometrically shaped "bricks". A Pattern pictograph is formed by assembling multiple Pattern icons. Within this system, the triangular icons of the Pattern modules represent the increasing and decreasing number sequences of the Pattern equation terms after substitution.

Disduonity Icons

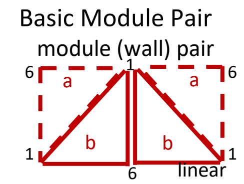


Fill Doublet Values

The squared disduonity fill terms (below) yield the converted 1,3,6,10,15 sequences.

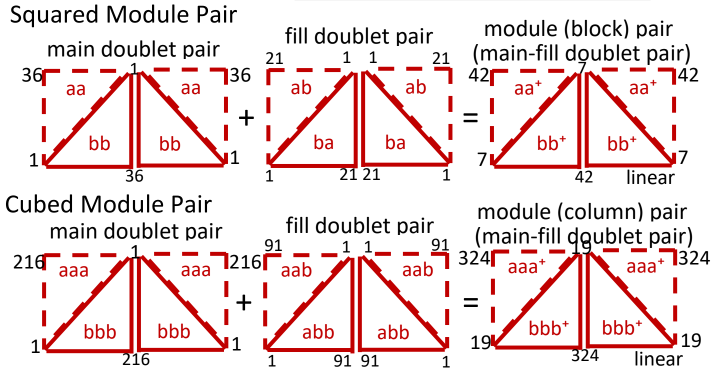


Duonity Icons

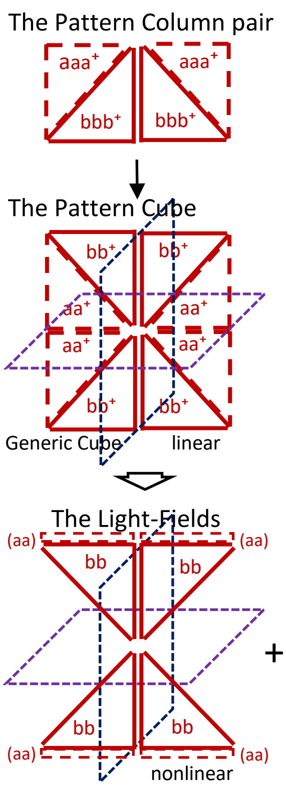


Fill Doublet Values

The squared duonity fill terms (below) yield the converted 1,3,6,10,15,21 sequences.

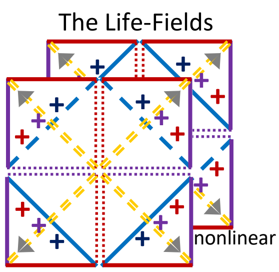


The Pattern Column Transformations



The Transformed Disduonity Pattern Column Pair

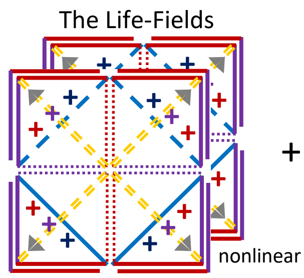
The Pattern Column Pair transforms into the compact (with cover) (disduonity) linear Pattern Cube.



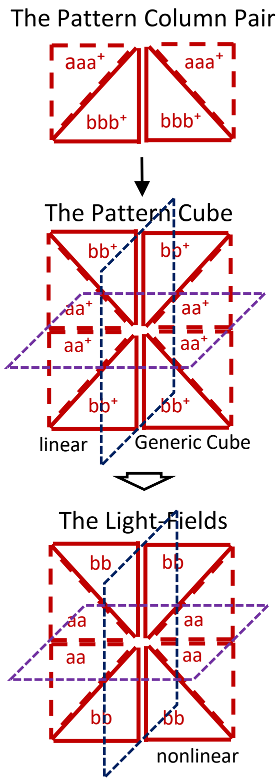
Fill triplets are indicated by '+'s.

The Transformed Duonity Pattern Column Pair

The Pattern Column Pair transforms into the noncompact (no cover) (duonity) linear Pattern Cube.



Note the overlap indicators.



Duonity and Disduonity Pattern Columns

A duonity column pair consists of six pairs of duonity blocks, corresponding to the six pairs of Pattern values (6,1), (5,2), (4,3), (3,4), (2,5), and (1,6). The rearrangement of the twelve duonity blocks (each measuring 6x6x6 cells) within the column pair into the cluster of blocks is therefore straightforward. In contrast a disduonity column pair consists of seven pairs of blocks (6x6x6 cells each), corresponding to the seven pairs of the disduonity Pattern values. According to the Pattern identity, however, a column pair equals six times the block pair. In this case, each disduonity block measures 7x6x6 cells. The disduonity cluster therefore consists of twelve disduonity blocks. (See the next page, PA:6, for detail.)

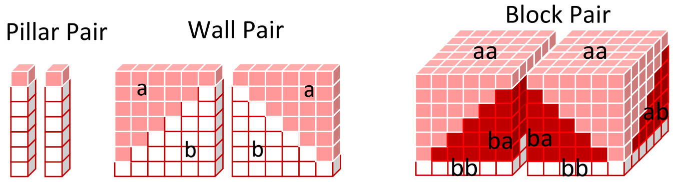
The Pattern Geometrics

The terms of the Pattern equations are used as labels to identify the number sequences, fields, and composite bricks. The selection of Pattern structures shown below are assemblies made from different types of bricks, though only some of the bricks are labelled.

The standard Pattern bricks are described in Folder 16 *The Pattern Pictobricks.*

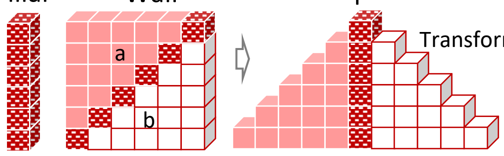
Disduonity Objects

Pillar Pair Wall Pair Block Pair

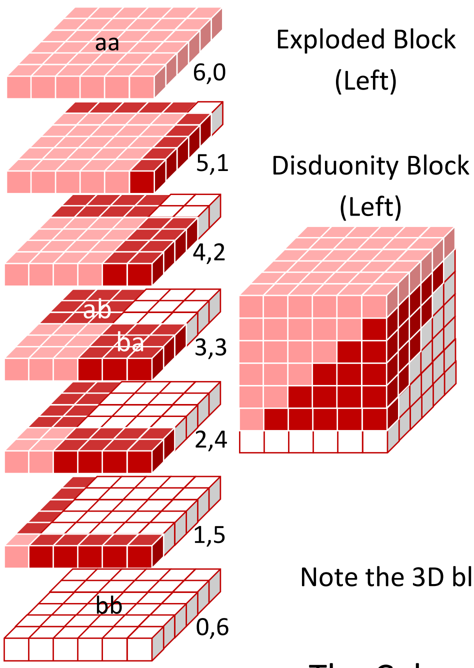


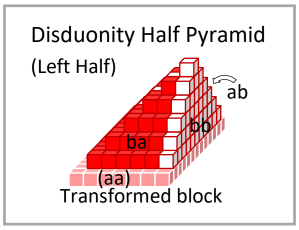
Duonity Objects

Pillar Wall Step wall

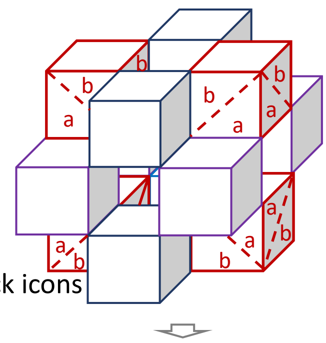


Dotted cubes indicate cells that overlap.

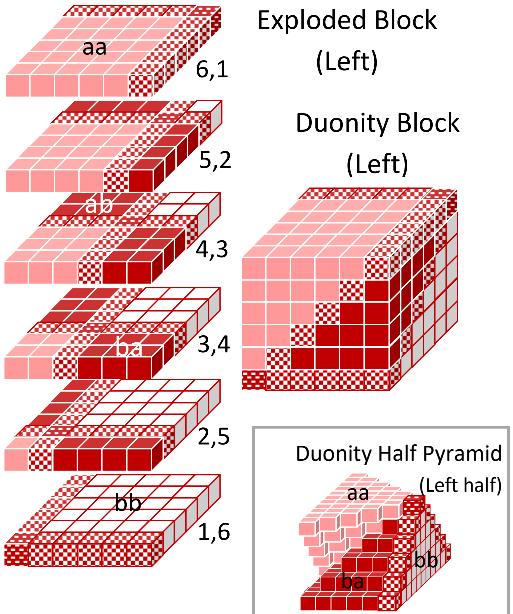




Block Cluster

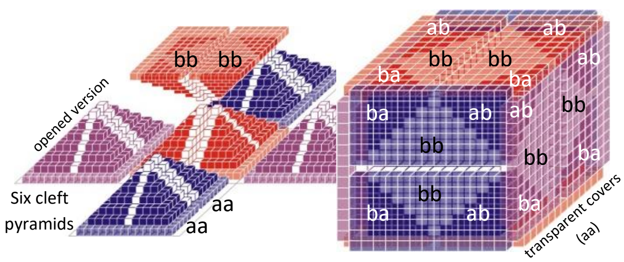


Note the 3D block icons



The Cubes Are Transformed Clusters of Block s

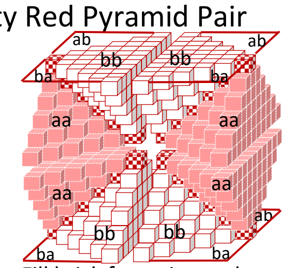
The Disduonity Pattern Cube



The transparent cover of the (compact) cube is its seventh layer. The detail of the sixth layer is visible.

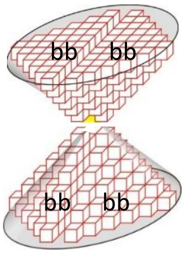
The Duonity Red Pyramid Pair

The red *aa* bricks overlap with the purple main bricks (*aa* and bb) of the duonity Pattern cube, as shown above.

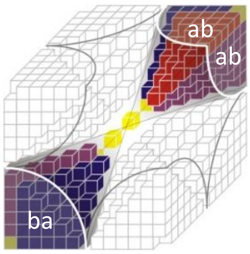


Fill brick footprints only

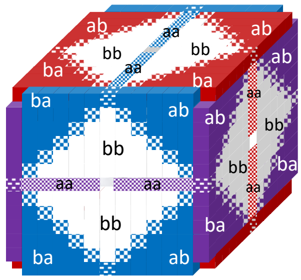
Light-cone



Life-cone



The Duonity Pattern Cube



The duonity Pattern cube consists of six concentric cubes - the disduonity cube consists of seven.
The overlapping cells are indicated by their dotted colouring. Note that the *aa* and *bb* cone cell overlap is not shown by dotted cells.

The geometric shapes of the Pattern objects feature cubical cell renditions, which are typically used to represent motion-type actions. In contrast, objects that represent radiation-type actions are composed of spherical cells. The distinction between cubical and spherical forms is, however, simply a convenient way to indicate the two fundamental applications of the Pattern.

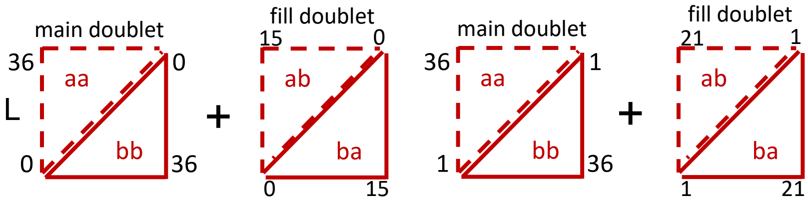
Attachment: Module Field Maps

A Pattern field map is a 2D (matrix) representation of the number of cells in the fields of a module. *(The map of a pre-transformed module is shown at the bottom.)* Fields are identified by their terms, such as *a*, *aa* and *aaa*. A modules may contain two or more fields depending on the equation's position in the hierarchy – for example: A 1-equation has 2 fields), a 2-equation has 4 fields, and so on.

Squared Module Field Icons

Squared modules consist of a main field doublet and a fill field doublet, as shown on the right. The distinct doublets of the disduonity and duonity modules are also illustrated.

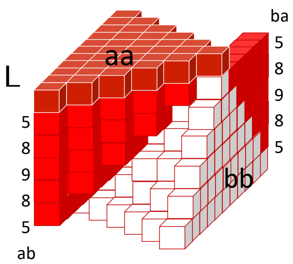
Disduonity Squared Field Module Duonity Squared Field Module



Disduonity Squared Module Field Maps

The main doublet field map, the fill doublet field map, and the combined module field map of the disduonity squared module are shown below. The numbers within the cells of the maps represent the numbers of cells in the 3D field (or "brick"). Note that the disduonity field maps are not square (7 x 6 cells) due to the presence of an additional row.

Disduonity Squared Module



main doublet map

aa	Left Module						bb
36	11	9	7	5	3	1	0
25	9	7	5	3	1	1	1
16	7	5	3	1	1	3	4
9	5	3	1	1	3	5	9
4	3	1	1	3	5	7	16
1	1	1	3	5	7	9	25
0	1	3	5	7	9	11	36

+

fill doublet map

ab =	15	10	6	3	1	0	
0	0	0	0	0	0	0	0
5	1	1	1	1	1	5	5
8	2	2	2	2	4	4	8
9	3	3	3	3	3	3	9
8	4	4	2	2	2	2	8
5	5	1	1	1	1	1	5
0	0	0	0	0	0	0	0
	0	1	3	6	10	15=	ba

=

disduonity squared module map

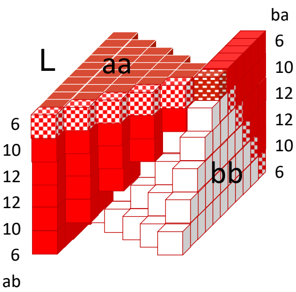
aa + ab	Left Module						ba + bb
36 + 0	11	9	7	5	3	1	0 + 0
25 + 5	10	8	6	4	2	6	5 + 1
16 + 8	9	7	5	3	5	7	8 + 4
9 + 9	8	6	4	4	6	8	9 + 9
4 + 8	7	5	3	5	7	9	8 + 16
1 + 5	6	2	4	6	8	10	5 + 25
0 + 0	1	3	5	7	9	11	0 + 36

Duonity Squared Module Field Maps

Duonity squared module field maps consist of a main doublet map and a fill doublet map. The paired numbers in the diagonal cells indicate the number of superposed (overlapping) field cells. Note that the duonity field maps are square (6 x 6 cells).

The layers of Pattern field maps reflect progressions of specific kinds, such as acceleration and deceleration sequences. The fill sequences may also be converted to represent sub-acceleration (see page PA:3).

Duonity Squared Module



main doublet map

aa =	36	25	16	9	4	1	bb
36	11	9	7	5	3	11	1
25	9	7	5	3	11	3	4
16	7	5	3	11	3	5	9
9	5	3	11	3	5	7	16
4	3	11	3	5	7	9	25
1	11	3	5	7	9	11	36
	1	4	9	16	25	36=	bb

+

fill doublet map

ab =	21	15	10	6	3	1	
6	1	1	1	1	1	16	6
10	2	2	2	2	25	5	10
12	3	3	3	34	4	4	12
12	4	4	43	3	3	3	12
10	5	52	2	2	2	2	10
6	61	1	1	1	1	1	6
	1	3	6	10	15	21=	ba

=

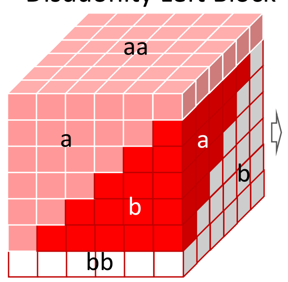
duonity squared module map

aa + ab	57	40	26	15	7	2	
36 + 6	12	10	8	6	4	27	6 + 1
25 + 10	11	9	7	5	36	8	10 + 4
16 + 12	10	8	6	45	7	9	12 + 9
9 + 12	9	7	54	5	8	10	12 + 16
4 + 10	8	63	5	7	9	11	10 + 25
1 + 6	72	4	6	8	10	12	6 + 36
	2	7	15	26	40	57	ba + bb

The Block Field Maps

The field maps of the left disduonity block are shown below. *(A block is a pre-transformed squared module.)* The main doublet map and the fill doublet field map are represented separately and then combined into a single block map. Note that only the main doublet field map differs from the transformed version of the module above.

Disduonity Left Block



main doublet map

aa	Left Module						bb
36	6	6	6	6	6	6	0
25	5	5	5	5	5	1	1
16	4	4	4	4	2	2	4
9	3	3	3	3	3	3	9
4	2	2	4	4	4	4	16
1	1	5	5	5	5	5	25
0	6	6	6	6	6	6	36

+

fill doublet map

ab =	15	10	6	3	1	0	
0	0	0	0	0	0	0	0
5	1	1	1	1	1	5	5
8	2	2	2	2	4	4	8
9	3	3	3	3	3	3	9
8	4	4	2	2	2	2	8
5	5	1	1	1	1	1	5
0	0	0	0	0	0	0	0
	0	1	3	6	10	15=	ba

=

disduonity block map

aa + ab	Left Module						ba + bb
36 + 0	6	6	6	6	6	6	0 + 0
25 + 5	6	6	6	6	6	6	5 + 1
16 + 8	6	6	6	6	6	6	8 + 4
9 + 9	6	6	6	6	6	6	9 + 9
4 + 8	6	6	6	6	6	6	8 + 16
1 + 5	6	6	6	6	6	6	5 + 25
0 + 0	6	6	6	6	6	6	0 + 36

Attachment: Triplet Field Maps

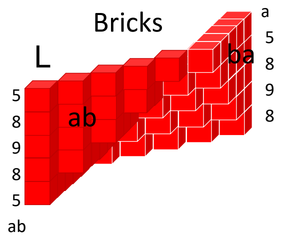
A Pattern triplet is a combination of three transformed fill fields from the squared Pattern equation. *(The pre-transformed fill field doublet of a Pattern block represents two quantum qubits.)* A triplet field map shows the numbers of cells in a triplet. The number of cells in each row (perpendicular to the map) is indicated in the corresponding position within the map.

Disduonity Fill Doublet Bricks and Map

The *ab* and *ba* fill brick doublet is shown on the right, with its corresponding field map on the far right. No overlapping cells are indicated on the map. The map is not square due to the disduonity values used.

The *ab* and *ba* number sequences on the map reflect the non-converted sequences. The converted sequence of the *ab* field, for example, can be obtained by counting the cells vertically. The resulting *ab* sequence, from right to left, is: 1,3,6,10,15

Disduonity Fill Doublet Bricks



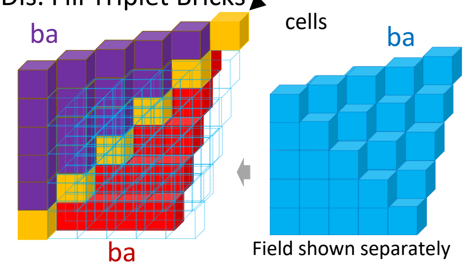
Disduonity Fill Doublet Map

ab	Left Module						ba
0	0	0	0	0	0	0	0
5	1	1	1	1	1	5	5
8	2	2	2	2	4	4	8
9	3	3	3	3	3	3	9
8	4	4	2	2	2	2	8
5	5	1	1	1	1	1	5
0	0	0	0	0	0	0	0

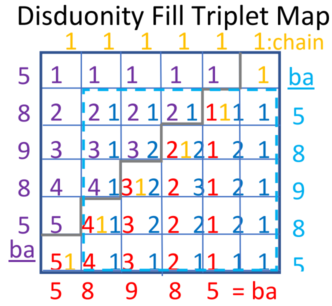
Disduonity Fill Triplet Bricks and Map

The eight vertices of the Pattern cube each consist of three fill fields – these are referred to as *triplets*. The triplet diagram on the right illustrates the left-front triplet of the Pattern cube. The triplet field map shows four types of cells: red cells, purple cells, blue cells, and the six yellow cells of the (virtual) codon chain. The diagonal layers of the triplet embody the squared sequence characteristic of constant acceleration.

Dis. Fill Triplet Bricks



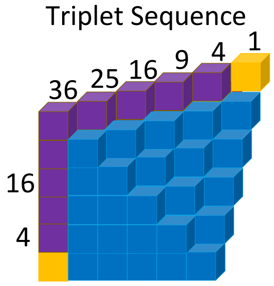
Disduonity Fill Triplet Map



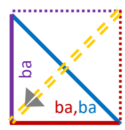
Disduonity Triplet Sequence and Icon

A triplet icon represents a red, purple, and blue fill term together with virtual chain links. The brick version of the front-left triplet is shown on the right. The acceleration/deceleration arrow (far right) illustrates the constant acceleration sequence of the combined fields.

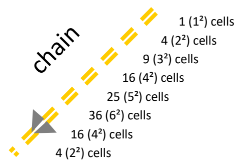
Triplet Sequence



Disduonity Triplet Icon



Combined Arrow

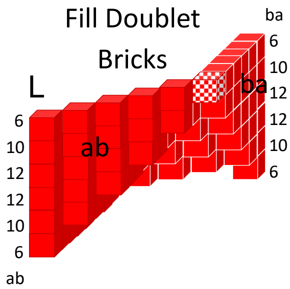


Duonity Fill Doublet Bricks and Map

The duonity *ab* and *ba* fill brick doublet is shown on the right, with its field map on the far right. The overlapping cells are indicated along the diagonal of the map.

Note that the *ab* and *ba* values differ from the disduonity values described above. In addition, the number of rows is one fewer than in the disduonity map.

Duonity Fill Doublet Bricks



Duonity Fill Doublet Map

ab =21	15	10	6	3	1		
6	1	1	1	1	1	16	6
10	2	2	2	2	25	5	10
12	3	3	3	34	4	4	12
12	4	4	43	3	3	3	12
10	5	52	2	2	2	2	10
6	61	1	1	1	1	1	6
	1	3	6	10	15	21= ba	

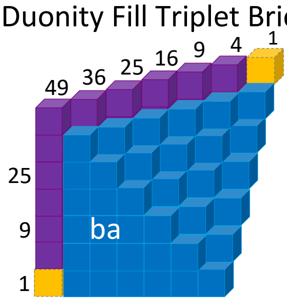
Duonity Fill Triplet Bricks and Icon

The duonity fill triplet brick version is shown on the right, with its icon displayed on the far right.

The major difference between the disduonity and duonity triplets lies in the added layers of the bricks. The effect of this additional orthogonal layer (the seventh) is to extend the length of the acceleration/deceleration arrow from; 1,4,9,16,25,36,16,4 (eight layers) to 1,4,9,16,25,36,49,25,9,1 (nine layers).

Accordingly, the duonity triplet map has seven rows and seven columns. The duonity triplet icon reflects this added column and row through the inclusion of two additional orthogonal lines.

Duonity Fill Triplet Bricks



Duonity Triplet Icon