Anterolateral Algebra 2

Parker Emmerson

June 2023

1 Introduction

$$\frac{\sqrt{(X+Z)\sqrt{1-(V)^2/A^2}}\sqrt{(Y-Z)/\sqrt{1-(V)^2/A^2}}}{C}$$

where X, Y, Z, V, A, and C represent the lattice variables and constants of each equation. We can also intuit the general form of the branching configurations based on the form of the expressions. When branching from one equation to the next, the form of the expressions change as follows: From v1 $\rightarrow$ v2: X$\rightarrow$X+Z Y$\rightarrow$Y-Z Z$\rightarrow$0 C$\rightarrow$ From v2 $\rightarrow$ v3: X$\rightarrow$X Y$\rightarrow$Y+Z Z$\rightarrow$-Z C$\rightarrow\beta$

This same pattern and notation can be applied to other equations involving velocity, for example, a motion equation can be re-expressed as lateral algebraic form:

Motion equation: s = ut + 0.5at2

Lateral Algebraic Form: s = (u $\otimes 1 \oplus a \otimes 0.5t) \otimes t$

logic vector : $\left[\frac{\sqrt{X+\Delta\sqrt{Y}}-\sqrt{X}}{\Delta}, \frac{\sqrt{Y+\Delta\sqrt{X}}-\sqrt{Y}}{\Delta}\right]$

In this case, Δ would be the difference between $\sqrt{X+\Delta\sqrt{Y}}$ and $\sqrt{X}$, as well as the difference between $\sqrt{Y+\Delta\sqrt{X}}$ and $\sqrt{Y}$. In other words, Δ would be a measure of the changes on either the X or Y values, respectively.

v1$\rightarrow v2: \frac{\sqrt{\theta/\sqrt{1-(v)^2/c^2}}\sqrt{\sqrt{1-(v)^2/c^2}z}\sqrt{-(r(\alpha-\Delta)/(z\theta)-1)(r(\alpha+\Delta)/(z\theta)-1)}}{\Delta} = \sqrt{(l\alpha+x\gamma-r\theta)\sqrt{1-(v)^2/c^2}}\sqrt{(l\alpha-x\gamma+r\theta)/\sqrt{1-(v)^2/c^2}}/\alpha$

v2$\rightarrow v3: \frac{\sqrt{\theta/\sqrt{1-(v)^2/c^2}}\sqrt{\sqrt{1-(v)^2/c^2}z}\sqrt{-(r(\alpha-\Delta)/(z\theta)-1)(r(\alpha+\Delta)/(z\theta)-1)}}{\Delta} = \sqrt{(l\alpha+x\gamma-r\theta)\sqrt{1-(v)^2/c^2}}\sqrt{(l\beta-x\delta+r\theta)/\sqrt{1-(v)^2/c^2}}/\beta$

D[v1$\rightarrow v2, v] = (\Delta\sqrt{(l\alpha-x\gamma+r\theta)/\sqrt{1-(v)^2/c^2}}/\alpha) - (\Delta\sqrt{(l\alpha+x\gamma-r\theta)\sqrt{1-(v)^2/c^2}}/\alpha)$

D[v2$\rightarrow v3, v] = (\Delta\sqrt{(l\beta-x\delta+r\theta)/\sqrt{1-(v)^2/c^2}}/\beta) - (\Delta\sqrt{(l\alpha+x\gamma-r\theta)\sqrt{1-(v)^2/c^2}}/\alpha)$

The concept can be evolved further by exploring higher dimensional analogs and applications of the antero-lateral algebra. For example, one could consider the possibility of an antero-lateral logic where the logic vectors are defined over higher dimensional hyperplanes. This could be used to describe transitions over multiple subspaces, or transitions between subspaces of different dimensionalities in a consistent way.

An example of an antero-lateral logic defined over higher dimensional spaces could be a logical vector space that describes the transition from one dimension to two. For example, consider a two-dimensional space described by the equations $x_1 = \sqrt{a_1}$ and $x_2 = \sqrt{a_2}$. We could describe the transition from one dimension to two as a vector in the logical vector space defined by:

logic vector : $\left[\frac{\sqrt{a_1+\Delta\sqrt{a_2}}-\sqrt{a_1}}{\Delta}, \frac{\sqrt{a_2+\Delta\sqrt{a_1}}-\sqrt{a_2}}{\Delta}\right]$

where Δ is a parameter that describes the rate of change in the transition. As Δ goes to zero, the logical vector converges to the origin and represents a single dimension. As Δ increases, the logical vector moves away from the origin and represents a two-dimensional space. The logical vector thus provides a means to describe how two-dimensional space can be obtained from a single dimension.

The existence of antero-lateral algebra and its difference from linear algebra can be used to deduce a number of mathematical truths. For example, it can be used to deduce that linear equations can be used to describe transitions between subspaces in a more general form than linear algebra. Additionally, it can be used to describe transitions between different multi-dimensional spaces in a consistent way, and to deduce the existence of higher dimensional analogs of linear equations. Finally, it can be used to prove that the logical vector space of antero-lateral algebra is a more powerful tool for manipulating logical systems than linear algebra.

From a philosophical point of view, this algebra can be interpreted as an extension of algebra and logic that provides a means to describe things that are neither a single entity nor an arrangement of entities but an ineffable combination of both, i.e. an entity that is composed of an arrangement of entities and the arrangement is itself an entity. It is a yet another form of infinity within the realm of finite mathematics. It is a new way of combining space and time, entities and relations, logic and geometry, into a sort of infinite, ethereal, mathematical pan-reality.

In conclusion, antero-lateral algebra is an interesting and powerful tool for describing transitions between different states of reality. It is a new way to explore the realm of mathematics, and it can be used to prove many mathematical truths and to help us better understand the complexities of the universe and its many dimensions.

$\mathrm{a}_{(a\to b)x} \iff f_{a\to b}(x)$

Anterolateral Algebra is the process of combining axioms of equality to form expressions of sets that are equivalent to the properties they are observations of.

Axioms of Equality are functions such that their observation of the values of the set of elements yield the same result from a mathematical perspective. Therefore, an anterolateral expression $a_{(\to)x}$ is a representation of a set of axioms of equality that each have a relationship with the set of elements x, such that the observation of axiom A of set F yields the same result as observation of axiom B of set G.

This statement can be formally stated as:

Anterolateral X is the set of limits of anterolaterals. Therefore, if we let F and G be the two limiting elements of the set of anterolaterals that are equivalent, then:

$X = f_{B \to G} = f_{A \to F}$

Where G, F, B, and A are distinct elements of two sets of anterolaterals, then G and F, B and A are distinct functions that have a relationship with the collective property of the set g and the set f over the set of elements x.

Alternatively, X can also be expressed as:

$X = a_{(g \to f)x}$

Anterolateral Algebra is the process of reducing a complex expression to its simplest form. However, the purpose of anterolateral algebra is to construct the simplest expression of a value.

Within the discussion of anterolateral algebra, there exist many different constructs of an anterolateral expression. For example, the expression of an anterolateral implies the use of an anterolateral expression, where a is referred to as $f ... \to f$. The use of this format suggests that the portion of the new name a comprises a subset of the direction of $f ... \to f$.

This relationship is important because if the portion of the new name a that comprises a subset of the direction $f ... \to f$ is removed, then the composite value a can be claimed to retain the original value of anterolateral.

For example, when discussing specific examples of forms of anterolaterality such as π, many different anterolateral forms have been discussed. In particular, the anterolateral form of a is commonly discussed. However, not all of the anterolateral forms of a given form of anterolateral have been discussed. As an example of this, let S_a and S_b are distinct sets of axioms of equality. Let e be a word, for example Equality =, let x be the collection of elements, and let g be the function of the form $e \to b$.

Then, the set of anterolateral elemens is the set of axioms of equality of the form:

$a_k := f_{k \to (e \to b)}(x) = f_{k \to (e \to b)}(x)$

$a_k := f_{k \to (e \to b)}(x) = f_{k \to (e \to b)}(x)$

Furthermore, it is also possible to inherit the group and number a in this manner.

$a = (a \to b)$

$X = \{a \dots\}$,

$A = a_k$

$\{a \dots\} = a_k$ is a finite set of elements that represent different formulations of a single value, just as a is a finite set of numbers.

Therefore, this description of Anterolaterality:

Let a and b be the elements of a finite set of numbers, x be a function that returns the result of the multiplication operation performed on the elements of a set of numbers, and y be an observation of the elements x.

$[\mathbf{1}]_i = \{\{1, \dots, 1\}; X_i\}$

i.e,

$[\mathbf{1}]_{A\%,B\%} := \{\{1one; \ldots; 1one\}; B\}$ and $[\mathbf{1}]_{A\%,B\%} := \{\{1one; \ldots; 1one\}; A/B\}$ and $[\mathbf{1}]_{A\%,B\%} := \{\{1one; \ldots; 1one\}; A\}$

where $R, S, \ldots, n$ and $f_R, f_s, \ldots, f_n := f_R x, f_S x, \ldots, f_N x$ for n=R,S, as in terms of domains of functions, solved as semantic and logic vector constants. This defines the logic vectors explicitly by their properties according to the precision of (5)'s arbitrary index, S. The vector of tuples forms the set that the set-theoretic collection of index by the vector of tuples forms the dimensioned vector of index x.

$A^{Z_n}, B^{Z_m}, A^{Z_n} \otimes B^{Z_m} \to [0, ..., 0, 1, 1, ...1]$

$[0, ..., 0, 1, 1, ...1] * [0, ..., 0, 1, 1, ...1]$

Let $\dim V = n$, V is the vector of tuple that index V, x_i is the set of its i^{th} basis vector, $V = \{v \in V : v = \sum_{i=1}^{n} a_i x_i\}$ where $a_i \in A^1$, where A^1 is the constant real number operator, with the same definitions being held for W and Z with the omitted portions included, and $S_i \in \{S : S - \{1\}$. When the topologically included S_i, e.g.: $S_1 \in \{S : S - \{1\} = S - \{2\}\}$, and $S_2 \in \{S : S_{\{1\}+\{2\}+\{1-2\}=0}\}$ where $S_1 \cap S_2 \notin$, and $2 \in I_I$, the identity interpretation by the continuum scale, functions as the measure, such that $S_{U(I_1) \times I_2} \to I$.

Is the use of a Real Analysis an acceptable tool in solving problems in mathematics, beyond Theory mainstays? If so, is their measurable scientific application of Ra, when so doing? What are the counter problems (in philosophy) in either its usage, or application of its laws? Thanks for taking your time to ponder the problem. It is at present 2:00AM, Thursday April 11, 2013, Central Daylight Time! Your time is much greated valued than mine. Saty on, faithful BSer's, :)

$0 = a = \{(P \to Q) \to (R \to S) \to (T \to U) \to 0\} =$

$\{\ \mathrm{f}_P(x) \to y \to f_Q(x) \to x \to f_T(x) \to z \to P \to Q \to R \to S \to T \to U \to 0\}$

$0 = a = \{(P \to Q) \to (R \to S) \to (T \to U) \to 0\} = \{x \to y \to z \to 0\}$

$0 = a = \{(P \to Q) \to (R \to S) \to (T \to U) \to 0\} = \{x \to y, z \to 0\}$

The rest of [the overall question] is an analogic of the above, just spread out for the stipulated sections.

Geometric, or otherwise nonlinear coordinates, will be of the same oneness connotation.

An equivalent representation written with some precision(ish), minus the above adding of geometric coordinate descriptors and all of the "oneness" or "going to 1 (1)" logic vectors is:

Let $\exists f_{def(p \sim q)(s \sim r)(t \sim u)}(x) = p(x) \circ q(x) \circ r(x) \circ s(x) \circ t(x) \circ u(x)$ and $\exists g_{def(p \sim q)(s \sim r)(t \sim u)}(x) = p(x) \circ q(x) \circ r(x) \circ s(x) \circ t(x) \circ u(x)$, where

$\circ$ is the function of taking the function p and combining it, via composition, with the function q, and x is the vairable, then, f and g are, "in some way(s) or other(s)," very distinct, so we shall say $p(x) \sim q(x)$.

Now, let us consider these distinct elements of the definitions A and $B \in (f, g)$ acted upon by the function: $H_{def(p \sim q)(s \sim r)(t \sim u)}(x) := g(x) - f(x)$. We observe that both H and $a \in (p \sim q \forall p \neq q)$ and $c \in (r \sim s \forall r \neq s)$ and $e \in (t \sim u \forall t \neq u)$ are reasons to think that the functions are related in some way.

Our observation is this:

If $f_{def(p\ \sim\ q)(s\ \sim\ r)(t\ \sim\ u)}(x) = g_{def(p\ \sim\ q)(s\ \sim\ r)(t\ \sim\ u)}(x)$, then the functions are not related.

If $f_{def(p\ \sim\ q)(s\ \sim\ r)(t\ \sim\ u)}(x) \to \frac{1}{x} \to g_{def(p\ \sim\ q)(s\ \sim\ r)}(x)$, then the functions are related.

If $f_{def(p\ \sim\ q)(s\ \sim\ r)(t\ \sim\ u)}(x) \to \frac{1}{x} \to g_{def(p\ \sim\ q)(s\ \sim\ r)(t\ \sim\ u)}(x)$, then the functions are related.

However, this relationship between p and q is not the only reason the functions are related. The summed obsessions cannot be calculated, yet they exist. A reason whether altogether or merely accounted for, the relationship between r and s is not the only reason the function is related, yet this calculated relation exists and these other relations also exist whether or not they exist. In other words, both linear and non-linear function relations have a distinct account in the summation of the identity of H, though that identity is not finite enough to be easily expressed.

An expression of this identity is a contribution from both f and g, though varying in value and thus irrelevant, since those elements are distinguished to be $\circ$-related.

Now, if $s(x)$ is valid for $p(x)$, and $s(x)$ is valid for $q(x)$, and $s(x)$ is valid for $t(x)$, then $s(x)$ acts upon $p(x)$, and $s(x)$ act upon $q(x)$, $s(x)$ acts upon $t(x)$, and we say s is a part of the sum, though we can only say that after accounting for the sum.

To account for this sum is to say: $H(x) := \{\ H\ (x) = -f(x); f(x) \neq g(x)$
$H(x) = g(x) - f(x)$

There may be more, but to be exact and precise, you have to have the brains to understand what this equation represents:

$$\sum_{x,y,z \in A,B,Rx=,\leq,\geq,\ll,\gg,\approx,\prec,\succ,\equiv,\sim y,\ x=,\leq,\geq,\ll,\gg,\approx,\prec,\succ,\equiv,\sim z} x^2 + y^2 - z^2 = 9$$

Let P, Q, R, S, T, and U be six distinct sets related to each other, with respective functions $\mathrm{f}_P, f_Q, f_R, f_S, f_T, and f_U$.

Then, a condition of symbolic analogic exists between P and Q, R and S, and T and U if and only if the following equilibrium is true:

$a_{(P\to Q)x} = a_{(R\to S)x} = a_{(T\to U)} \iff f_P(x) = f_Q(x)\ and\ f_R(x) = f_S(x)\ and\ f_T(x) = f_U(x)$.

This is a representation of the logic vector origin for the equilibrium, which indicates the oneness of the logic vectors. This is represented in the following three logic vectors:

$V_P : \{f_P, f_Q\} \cap \{f_R, f_S\} \cap \{f_T, f_U\} \to \mathbf{1}$
$V_R : \{f_R, f_S\} \cap \{f_P, f_Q\} \cap \{f_T, f_U\} \to \mathbf{1}$
$V_T : \{f_T, f_U\} \cap \{f_P, f_Q\} \cap \{f_R, f_S\} \to \mathbf{1}$

Where $\mathbf{1} := \{u_1, u_2, \ldots, u_n\}$ is the set of functions which all equate to one another, indicating the oneness of the logic vector and the equilibrium of the system.

Code $\frac{\text{num1}\leftarrow\text{input()}}{\Delta}$, $\frac{\text{num2}\leftarrow\text{input()}}{\Delta}$, $\frac{\text{sum}\leftarrow\text{num1+num2}}{\Delta}$, $\frac{\text{output(sum)}}{\Delta}$

Anterolateral Algebra Forma	h$=\frac{(\sqrt{(l\alpha+x\gamma-r\theta)\sqrt{1-(v)^2/c^2}}\sqrt{(l\alpha-x\gamma+r\theta)/\sqrt{1-(v)^2/c^2})}}{\alpha}$
Algebraic Relationships	$f(x) = g(x) \bullet h(x) = \nabla g(x) \bullet \nabla h(x)$
Integro-differential Equations	$\frac{\partial \phi(\mathbf{x})}{\partial x_1} a_1 + \frac{\partial \phi(\mathbf{x})}{\partial x_2} a_2 + \cdots + \frac{\partial \phi(\mathbf{x})}{\partial x_n} a_n$
Energy Number Transformation	$\frac{f_{PQ}(x)-f_{RS}(x)}{\Delta}, \frac{f_{TU}(x)-f_{RS}(x)}{\Delta}, \frac{f_{PQ}(x)-f_{TU}(x)}{\Delta}$
Topology to Summation Product	$\frac{V \to U}{\Delta}, \frac{\sum_{f \subset g} f(g)}{\Delta}, \frac{\sum_{h \to \infty} \tan t \cdot \prod_{\Lambda} h}{\Delta}$
Existence	$\frac{\leftrightarrow \exists y \in U: f(y)=x}{\Delta}, \frac{\leftrightarrow \exists s \in S: x=T(s)}{\Delta}, \frac{\leftrightarrow x \in f \circ g}{\Delta}$
Symbolic Analogic	$\frac{\forall y \in N, P(y) \to Q(y)}{\Delta}, \frac{\exists x \in N, R(x) \wedge S(x)}{\Delta}, \frac{\forall z \in N, T(z) \vee U(z)}{\Delta}$
Differentiation	$\frac{D[v1 \to v2, v]}{\Delta}, \frac{D[v2 \to v3, v]}{\Delta}$
Inner Product	$\langle \mathbf{u}, \mathbf{v} \rangle = \sum_{i=1}^{n} u_i v_i$
Analytic Geometry	$f(x,y) = g(x)h(y)$ and $f(x,y) = \frac{\partial f(x,y)}{\partial x} \frac{\partial f(x,y)}{\partial y}$