Re: V

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- *From*: MoeBlee <jazzmobe@xxxxxxxxxxx>
- *Date*: Fri, 01 Jun 2007 10:32:01 −0700

On Jun 1, 7:57 am, zuhair <zaljo...@xxxxxxxxx> wrote:

> On Jun 1, 12:28 am, MoeBlee <jazzm...@xxxxxxxxxxx> wrote:
>
>> On May 31, 9:28 pm, zuhair <zaljo...@xxxxxxxxx> wrote:
>>
>>> VI for each vector I=i1i2i3....
>>> were ij in I =1,2,3,...... and j=1,2,3,.....
>>
>> I don't know what you mean by that.
>>
>> Do you intend to have an uncountable set of constants? If so, then
>> your theory is not recursively axiomatized.
>
> NO, I intende to have w^w set of constants, which is countable. (the
> exponentiation in w^w is ordinal
> exponentiation and not cardinal exponentiation
> so w^w is a countable ordinal, i.e we have
> a countable set of constants)
>
> The constant V_i is one dimensional.
> while the constant V_i_j is two dimensional
> Now i is called the first dimension
> while j is the second dimension
> Instead of this i,j notation I use an index
> on i so I symbolize V_i_j as
> V_i1_i2. This way is more practical if we have
> a lot of dimensions.
> In general a constant with n−dimensions is writtin as

V_i1_i2_i3_......_in

You can write the constant V that is omega dimensional
as
V_i1_i2_i3_........

Now for each natural number j we have the
ij as jth dimension of V, so i1 is the first dimension
and i2 is second dimension ,now since for each
natural number j we have a dimension ij then
we have omega of dimesnions.

However for ease I symbolize i1_i2_i3_...... as I

so I = i1_i2_i3_......

so V_i1_i2_i3_........ is symbolized as VI for short.

Of course each dimension ij is equal to a natural number
so i1 for example can take the values of 1 or 2 or 3 or...
so I symbolize this as
for each ij there is a natural number n such that
ij=n
so for example we can have the constant
V_1_1_1_.... were every dimension ij is 1 in value.
the nex constant is
V_2_1_1_1_...... in this constant we have i1=2
and in=1 for every n>1
The third constant would be
V_3_1_1_1_........
so i1=3 and in=1 for every n>1

and so on for all values of i1
so we will have w of the constants
as indexed above.

These constants as indexed above are called
constants of the first degree ,because
only the first dimension is variating in them
and the rest of the dimensions has the same value
that is 1.

Then we begin with the second degree
constants were i1 and i2 values variating
and in=1 for n>2.
as above beginning with the i2=2 and in=1 for
n>2 ,so we will have

V_1_2_1_1_1_.....
V_2_2_1_1_1_.....
V_3_2_1_1_1_.....

.
.
.
.
Now we will have Omega of constants
for each i2=2
then we start varing i2 to be equal to 3
and we vary values of i1 over them
so we will have omega of i1 varying and i2=3
and so on for every value of i2
so we will have omega^2 constants of second
degree.

Similarly constants of the third degree are defined
as those in which the first three dimensions vary
and in=1 for n>3
so the total number of these would be Omega^3

So for we have Omeag^n for each n−degree constant.

so at the end continuing this process we end with the following:

Total number of VI constants is

Omega+Omega^2+Omega^3+........+Omega^n+....

Now we have a countable number of terms Omega^n, since for each n
there is Omega^n
and each term is countabel since
omega^n is countable
THEN the total sum is countable.

So we don't have an uncountable number of VI constants.
But Perhaps I was wrong when I said it was equal to
w^w, but I thought so.

I would like to know what is the ordinal number for the sum above.

> Or do you intend to have a countable set of constants but each one
> indexed by an ordered pair of natural numbers? In that case, all you
> need to say is that for each i and j that are natural numbers, V_i_j
> is a constant.

NO.

> Or maybe you mean something else, in which case it would help if you'd make it clear.

Yes , see above.

I can barely make sense any of that. You're presupposing ordinal arithmetic just to stipulate a certain denumerable set of constants. I'd suggest considering looking for ways to simplify, since it seems to be quite a lot if you need ordinal arithmetic just to specify the symbols of your language.

MoeBlee

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