

"The P-Value Song"

Lyric by Michael Greenacre & Gurdeep Stephens

Statistics, logistics, cladistics seem to me
To have a common theme scientifically,
Economists, biologists, with PhD degrees,
They all need some proof of their theories.
A letter is the key, you'll see clearly,
Not B nor G nor V -- but it's the P!

There's no values like P-values
Like no values I know
Think of something that is not worth proving,
An hypothesis that everyone calls null,
If your P is too large to reject it
Then your experiment is rather dull.

There's no values like P-values,
Especially when they are low,
Don't be sad if your P's over point-O-five,
Just try again with samples twice the size!
Everything is possible, just trust in me:
Put your faith in the P!

The F test, the Z test, the chi-square and the T
And other cryptic terminology
ANOVA, regression, tests distribution-free,
They all need some sort of guarantee.
So if you find a tiny effect size
The P-value will be a good disguise!

There's no values like P-values,
The frequentist's hero,
When you get that data modeling feeling
But results you have are not a lot,
You will need some stats that are appealing
To show the journals your work is hot!

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*USCOTS 2015
Banquet Dinner*

*Friday, May 29
6:30 - 8:30 pm*

*The Penn Stater Conference Center
State College, Pennsylvania*

Greetings:

Allan Rossman, USCOTS Program Chair

Edutainment:

*A Video Montage of Statistics in Film
James Bush, Waynesburg College*

Reflections on Careers of Making Connections:

*Bob Johnson, Monroe Community College
Ann Watkins, California State University, Northridge*

Awards:

*CAUSE/USCOTS Lifetime Achievement Award
Dennis Pearl, Director of CAUSE*

A-μ-Sing Competition Song Winners

*CAUSE thanks the Penn State University Statistics
Department for its generosity in funding the USCOTS '15
banquet.*

"Our Experiment"

lyric by Laura Krajewski

Here's a question for you, which you must test:
Which leads to greater success?
A student who eats well every day,
Or one whose diet's gone astray?

Chorus

When we plan out our experiment,
We must be sure to add
A control, replication, randomization,
And maybe even blocking ain't bad.

Ok let's see...who shall we test?
University students are best.
Both boys and girls from every year,
To make sure randomness is clear.

But boys and girls may react differently,
Maybe we should group them separately.
This will let us further randomize the test,
Thus by blocking we aim for the best.

Repeat Chorus

So we've got a random group of them,
Our roots are set now what's our first stem?
We must ruin the diets of a few,
Perhaps just feed them Mountain Dew.

Now some we'll feed well every day,
Their diets cannot go astray!
And for our control some folks stay untouched,
To see if they have any luck.

Repeat Chorus

What about blinding? Can we use it now?
Can we keep our treatments hidden somehow?
In this case no, I think they'd know,
But thanks for the suggestion though!

So we've got three groups, what do we think we'll see?
Who will win academically?
Let's hypothesize it's those who are fed well,
All the others will not excel.

Repeat Chorus

If we run this once will that be good?
Can our results then be fully understood?
Not so fast! We must once again replicate,
Perhaps try again in another state.

Now let's run the test, that's all there's left to do.
But even then our results aren't always true.
Maybe diet isn't the cause of what we find,
We must keep both types of error in mind.

So remember:
A control, replication, randomization,
And maybe even blocking ain't bad.

"On Average"

music & lyric by Lawrence Mark Lesser

She tries to "fix" me or she's silent all night;
Neither's what I want, but on av'rage, it's all right.
It's like my head's in an oven and my feet in a block of ice:
The temperature on av'rage is one that would suffice!

At my center, a funny valentine
Says.... "on av'rage, I'm fine!"

I can be so left-brained and hardly feel my heart;
I can be so right-brained and be taken off guard.
The sides of my brain never align,
But on av'rage, I'm fine!

BRIDGE: Average manages to only go so far--
Gotta know my range when I play a *mean* guitar!

I have a broken heart and ache in my soul,
But still have my car and a place I call home.
I'm poor in spirit, but I can buy good wine....
On av'rage, I'm fine!

Half of you love this tune and say it's worth a prize;
The rest find it worthless and something to despise!
Some give ovations, some let tomatoes fly:
Guess on av'rage.... it's fine!