

St John's College
Cambridge

1939 Nov. 6.

Dear Fisher,

Glad to see "The Galton Laboratory" is still - or again - a recognized address.

I should prefer the paper to go to the Annals. The C.P.S. is having a bit of bother about a paper on Heaviside, partly by me; the first referee thought it was too long, and though I know they are getting another opinion I don't think it quite the right time to try another on them.

I am not sure what cases you have in mind when you say that I include in estimation problems cases where the answer is not an estimate. ~~xxx~~ In those I had in mind it seemed to me that there was always an estimate not very far away. e.g. suppose you have m sets of n observations; one standard error is estimated from the means and another from the scatter within the groups. If the former is too large it suggests a further variation, possibly normal, affecting the whole of a group, and the comparison leads to an estimate of this. but this is a typical z problem. I have extended this to unequal groups, as this trouble is continually turning up in astronomy and geophysics; there is no neat answer, but ~~ix~~ an approximate one can be got. I am on the problem just now of finding gravity over the earth to the fourth harmonics; it is a villainous thing, ~~ev~~^yerything that could possibly go wrong in the attempt to get a valid estimate of uncertainty doing so. Actually it is in cold storage at the moment because there are too few observations in the southern hemisphere to separate the third harmonics out properly (the first are theoretically absent). But Meinesz has made another voyage, from Cape Horn to Perth via the Cape,

which should help a lot when his data become available. It would be nice if we could divide the earth up into 10^6 squares, and within each assign 10 points by Tippett's numbers, and ^{get} ~~ask~~ somebody to observe just there. But there is not a single observation in the Southern Pacific between S. America and New Zealand, and no apparent prospect of getting any.

Yours sincerely,

Harold Jefferys
