

# Review of: "Computational substantial violation of the CHSH with close approximation of the respective quantum values"

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**Potential competing interests:** No potential competing interests to declare.

The paper is very hard to read. Half of the paper consists of an R script which is hard to read since it contains no comment lines explaining what is going on and explaining the meaning of the variables. It starts with a few very weird code lines in which the "seconds" (an integer from zero to 59) is extracted from the system clock and that number of times, the random generator is used to get one random number, but it is not used. Later, many computed numbers are printed out but without a little bit of text output saying what the output means. This and many other complicated and unnecessary constructions lead me to recommend the author to collaborate with a skilled R programmer so that a short and clear and well documented program follows.

As far as I can see the author is pointing out that when one simulates a local hidden variables model which has been designed to saturate the CHSH inequality by getting three correlations equal to +0.5 and one correlation equal to -0.5, and also all mean values (conditional on the pair of settings) equal to 0, one may often observe values of "S" (the sum of three correlations minus the fourth) well above the CHSH bound, 2. Well of course! With a finite sample comes (in general) a positive variance, so if the theoretical sum of expectation values equals 2, one can expect in half of the experiments to observe a larger value of the empirical counterpart of "S".

I have written a small simulation program in R, and published it on RPubS (a free service offered by RStudio, a popular IDE for R programming). I wrote it rather quickly and, I must admit, did not add comments and explanation of output. Maybe I will do that later. If anyone is interested and wants to know more about the program they should feel free to contact me by email. I'm easy to find on internet.

<https://rpubs.com/gill1109/lhv-full>