Erratum: Kolmogorov complexity of sequences of random numbers generated in Bell's experiments [Phys. Rev. A 98, 042131 (2018)]

Marcelo G. Kovalsky, Alejandro A. Hnilo¹⁰, and Mónica B. Agüero

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In that paper we made an error in the calculation of the normalization factor c(N) of Kolmogorov's complexity estimated according to the Lempel and Ziv algorithm. Table I should read as follows:

Figure 1, which summarizes the results in Table I to make them easier to visualize, is now as follows:

Filename (description)	Complexity (CORRECTED)	NIST (RND = ?)	S _{CHSH}	N
Longtime (remote, switched)	0.55	NO	2.51	95801
Longtime, subset {0,3}	0.65	NO	not applicable	2122
Longdist0 (remote, switched)	0.97	yes	2.53	15501
Longdist0, singles	0.96	ŇO	not applicable	471017
Longdist1	1.03	yes	2.63	16168
Longdist2	1.02	yes	1.98	26675
Longdist3	1.03	yes	2.67	24335
Longdist4	1.02	yes	2.66	25402
Longdist10	1.02	NO	2.20	26529
Longdist11	0.95	yes	2.41	25573
Longdist12	1.01	NO	2.37	27158
Longdist12, singles	0.97	yes	not applicable	934979
Longdist13	0.94	yes	2.36	27160
Longdist20	0.96	yes	2.06	41549
Longdist22	0.59	NO	2.16	39915
Longdist22, singles	0.96	yes	not applicable	1237058
Longdist23	0.96	yes	2.63	41058
Longdist30	1.01	yes	2.10	14145
Longdist31	0.97	yes	2.62	13022
Longdist32	0.97	yes	2.70	10992
Longdist33	1.04	yes	2.06	13004
Longdist34	1	yes	1.87	14289
Longdist35	0.96	NO	2.73	14562
Longdist35, singles	0.96	yes	not applicable	388455
Longdist36	0.97	yes	2.72	14573
Longdist36, singles	1.02	yes	not applicable	388573
Longdist37	0.97	yes	2.05	14661
Loccorr1 (local, switched)	0.96	yes	2.74	72533
Loccorr3	0.96	yes	2.74	73269
Loccorr3, singles	0.96	yes	not applicable	853985
Bluesin1 (local, static), $\alpha = 0^{\circ}$, $\beta = 7.5^{\circ}$	0.98	yes	not applicable	6797
Bluesin2, $\alpha = 0^{\circ}$, $\beta = 15^{\circ}$	0.97	yes	not applicable	6815
Bluesin3, $\alpha = 0^{\circ}$, $\beta = 22.5^{\circ}$	0.97	yes	not applicable	6822
Bluesin4, $\alpha = 0^{\circ}, \beta = 30^{\circ}$	0.96	yes	not applicable	6824
Bluesin5, $\alpha = 0^{\circ}$, $\beta = 37.5^{\circ}$	0.97	yes	not applicable	6784
SL1722 (local, static) $\alpha = 0^\circ, \beta = 22.5^\circ$	0.96	yes	not applicable	56913
Conlt3 (local, static, uncorrelated)	0.65	yes	not applicable	4950

TABLE I. Only the column "Complexity" has been corrected. Not all values in this column needed correction.

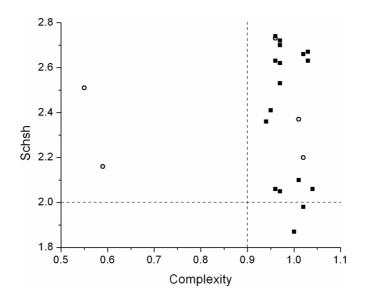


FIG. 1. Graphical representation of main data in (corrected) Table I. Open circles (full squares) indicate the runs that do not pass (do pass) NIST tests. Horizontal dotted line indicates Bell's limit, vertical line K = 0.9 (arbitrary limit of "high complexity").

The changes in comparison with Fig. 1 in the 2018 paper are not relevant. The most important change is that the number of series with high complexity, but that do not pass the NIST tests, has increased from 2 to 3. We stress that, in *both* figures, there is no correlation between S_{CHSH} and complexity.

In spite of the numerical error in the normalization of complexity, we emphasize that the main results reported in our 2018 paper remain the same.

We apologize for the error. We are very grateful to T. Tsurumaru, T. Ichikawa, Y. Takubo, T. Sasaki, J. Lee, and I. Tsutsui for having noted it.