

CORRIGENDUM

W. A. Beyer, R. B. Roof, and Dorothy Williamson, *The lattice structure of multiplicative congruential pseudo-random vectors*, Math Comp. **25** (1971), 345–363.

We have recently checked the lists of Minkowski-reduced bases vectors given in the above paper. Errors in the lists were found. Neither the code (written in the MADCAP language) nor the computer (MANIAC II) with which the original calculations were done any longer exist. We are not able to identify all the sources of the errors. In those lists, 100 vectors are given. Of these, 14 vectors are in error. Because there are, in the printed literature, few examples given of Minkowski-reduced bases, it was thought useful to give these corrections. The following is the set of the vectors that are in error and the corrected values of the vectors.

In Table 1, replace the first vector in dimension 6 with

–366950636 328620548 124696628 –35239772 –190790060 505360452.

Replace the third and fourth vectors with the vectors

314416152 397005112 –376884264 –321772040 313172376 323442872

and

–61810940 –322268876 –144847452 –513669292 –585564860 456122996.

In Table 2, replace the second vector in dimension 5 with

–6871930784 84448 422240 2111200 10556000.

Replace the second vector in dimension 6 with

6871947000 –3368 –16840 –84200 –421000 –2105000.

In Table 3, replace the fourth vector in dimension 6 with

163313628 543414092 1351300220 –72350100 –146268132 346071180.

In Table 4, replace the fourth vector in dimension 4 with

–98115976 39678936 23971000 103528216.

Replace the fifth vector in dimension 5 with

–5734448 –195087344 82730320 255762320 312176336

In Table 5, replace all five vectors in dimension 5 with

–34338777596 16756244 137350932068 –34316681228 181140684740,
–240373551820 –17167293948 17179863572 85853344356 52421909492,
–17135875544 274716521160 51510263272 17162974600 –52585559128,
85851134456 34307359192 –257553413832 –103007850984 69575616120.
120202485496 137355123416 39798328 326226894616 69576416120.

Replace the third vector in dimension 6 with

–343354289536 274655779968 –446385287552 154495174784
–240447493504 –623267277696.

These corrections entail corrections in the “figures of merit” and in the cosines of lattice angles. It was not thought useful to give these corrections.

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