

## Errata

In the paper

Ted Chinburg, Carla D. Savage, and Herbert S. Wilf, Combinatorial families that are exponentially far from being listable in Gray code sequence, *Trans. Amer. Math. Soc.* **351** (1999), no. 1, 379–402.

the following should replace the text on pages 400-401, from the line “Next, replace  $x$  by  $xy$  ...” through the end of the section:

Next, replace  $x$  by  $xy$  throughout, and then set  $x := -1$ . This yields

$$\sum_n \left\{ \sum_h (-1)^h f_1(n, h, k) \right\} y^n = \begin{cases} -y(1 + y^{k-1})/(1 + y^k) & \text{if } k \text{ is even;} \\ -y(1 - y^k)(1 - y^{k-1})/(1 - 2y^{k+1} + y^{2k}) & \text{if } k \text{ is odd} \end{cases}$$

which means that the coefficient of  $y^n$  in the series on the right is the excess of the number of words with an even number of 1’s over the number with an odd number of 1’s in our class of  $k$ -blockfree bit strings of length  $n$  which start with a ‘1’.

If we now double these generating functions, to take account of the excess among words that start with a ‘0’, we see that when  $n$  is even, a Gray code is possible for  $n$ -bit  $k$ -blockfree strings, if  $k$  is even, only if  $n \not\equiv 0 \pmod k$ , and, if  $k$  is odd, only if the coefficient of  $y^n$  in the series

$$(10.2) \quad 2y \frac{(1 - y^k)(1 - y^{k-1})}{1 - 2y^{k+1} + y^{2k}}$$

vanishes. In tabulations for  $n = 2, 4, \dots, 98$ , and  $k = 3, 5, 7, 9$ , we find that for  $n \geq k$  in this range, the coefficient of  $y^n$  in (10.2) vanishes only for  $(n, k)$  in the set

$$\{(8, 5), (14, 5), (82, 5), (10, 7), (12, 7), (18, 7), (20, 7), (26, 7), (34, 7), (12, 9), (14, 9), \\ (16, 9), (22, 9), (24, 9), (26, 9), (32, 9), (34, 9), (42, 9), (44, 9), (52, 9), (62, 9)\}$$

In fact, it appears from more extensive tabulation, that for each odd  $k$ , the coefficient of  $y^n$  in (10.2) never vanishes once  $n$  becomes large enough.