Errata

Errata to "Optimal Conflict-Avoiding Codes of Even Length and Weight 3"

Hung-Lin Fu, Yi-Hean Lin, and Miwako Mishima

In [1], the following corrections are necessary.
a) In the proof of Lemma 2.4 (p. 5751), for the case $s \equiv 3$ (mod 4), $F = \{4s - 5, 4s - 3\}$ and $s \geq 7$,

$$4s - 4 \text{ in } (3, 4n - 1)$$

should be read

$$4s - 4 \text{ in } (3, 4s - 1).$$

b) In the proof of Lemma 2.5 (p. 5751), for the case $s \equiv 0$ (mod 4) and $s \geq 8$,

$$4 \text{ in } (3s - 11, 3s - 7)$$

should be replaced by

$$4 \text{ in } (3s - 7, 3s - 3).$$

c) In Construction 3.1 (p. 5753):

$$\Delta_2(C_o) = \{2i - 1 : (n + 4)/8 + 1 \leq i \leq n/4\}$$
$$\cup \{4i - 2 : (n + 4)/8 + 1 \leq i \leq n/4\}$$
$$\Delta_2(C_d) = \{4i : (n + 28)/32 + 1 \leq i \leq (n - 4)/16\}$$
$$\cup \{8i : (n + 28)/32 + 1 \leq i \leq (n - 4)/16\}$$

should be replaced by

$$\Delta_2(C_o) = \{2i - 1 : (n + 4)/8 + 1 \leq i \leq n/4\}$$
$$\cup \{4i - 2 : 1 \leq i \leq (n - 4)/8\},$$
$$\Delta_2(C_d) = \{4i : (n + 28)/32 \leq i \leq (n - 4)/16\}$$
$$\cup \{8i : (n + 28)/32 \leq i \leq (n - 4)/16\}.$$

d) In Construction 3.1 (p. 5753):

$$\Delta_2(N_{od})$$

$$= \{2i - 1 : 1 \leq i \leq (n - 4)/8 - 1, i \neq (n + 12)/16\}$$
$$\cup \{4i : 1 \leq i \leq (n - 4)/32\}$$
$$\cup \{8i - 4 : (n + 28)/32 \leq i \leq (n - 4)/16\}.$$

should be replaced by

$$\Delta_2(N_{od}) = \{2i - 1 : 1 \leq i \leq (n - 4)/8\}$$
$$\cup \{4i : 1 \leq i \leq (n - 4)/32\}$$
$$\cup \{8i - 4 : (n + 28)/32 \leq i \leq (n - 4)/16\}.$$

e) In Construction 3.3 (p. 5754), all the congruent expressions $m \equiv 1, 37$ (mod 96), $m \equiv 13$ (mod 96) and $m \equiv 25$ (mod 96) should be read as modulo 48.

f) In Construction 3.4 (p. 5754), a codeword $\{0, c, n/2 - 2\}$ in N_{od} should be replaced by $\{0, c, n/2 - 3 + c\}$.

g) In Construction 3.6 (p. 5754), the sentence (3.6) for $1 \leq i \leq \lfloor (n - 20)/64 \rfloor - 1$ should be read (3.6) for $1 \leq i \leq \lceil (n - 20)/64 \rceil - 1$.

h) In Construction 3.7 (p. 5754), the sentence C_d be the set of (3.7) for $1 \leq i \leq (n - 20)/32$ should be replaced by C_d be the set of

$$\{0, n/4 - 1 - 4i, n/2 - 2 - 8i\}, 1 \leq i \leq (n - 20)/32.$$

i) In Construction 3.8 (p. 5755),

$$\{0, (n - 4)/16 + 6, (n - 4)/8 + 12\}\{0, n/6 + 1, n/3 + 2\} \quad (3.9)$$

should be read

$$\{0, (n - 4)/16 + 6, (n - 4)/8 + 12\},$$
$$\{0, n/6 + 1, n/3 + 2\} \quad (3.9)$$

so that (3.9) may indicate only $\{0, n/6 + 1, n/3 + 2\}$.

j) In Construction 3.8 (p. 5755),

$$\{0, (n - 4)/16 - 4, n/2 - 10\}, \{0, n/3 - 1, n/2 - 2\} \quad (3.11)$$

should be read

$$\{0, (n - 4)/16 - 4, n/2 - 10\},$$
$$\{0, n/3 - 1, n/2 - 2\}, \quad (3.11)$$

so that (3.11) may indicate only $\{0, n/3 - 1, n/2 - 2\}$.

k) In Construction 3.10 (p. 5755), a codeword $\{0, c, n/2 - 2\}$ in N_{od} should be replaced by $\{0, c, n/2 - 3 + c\}$.

REFERENCES

[1] H.-L. Fu, Y.-H. Lin, and M. Mishima, "Optimal conflict-avoiding codes of even length and weight 3," *IEEE Trans. Inf. Theory*, vol. 56, pp. 5747–5756, Nov. 2010.