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3) [45, 15, 14] quasi-cyclic code of degree 3 GF(2) with generating polynomials:

$$\begin{aligned} &x^{14} + x^{13} + 1 \\ &x^{14} + x^{12} + x^{11} + x^{10} + x^9 + x^6 + x^5 + x^4 \\ &x^{13} + x^{10} + x^9 + x^8 + x^7 + x^4 + x^2. \end{aligned}$$

IV. CONCLUSION

The New [47, 15, 16] code was found using computerized search and later its analysis using MAGMA revealed another procedure for its construction, which is also described in this paper. The lower and upper bound on $d_{\max}(47, 15)$ is now equal to 16. The actual entries in [3] for $n = 48$ and dimension $k = 16$ suggest that the code [48, 16, 16] can exist. Therefore we made some search using the algorithm \mathcal{B} from [3] to find that code as well, but without success until now. We believe that additional attempts in future with different methods or different starting conditions could be more successful.

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