A (cyclic) Gray code for the set \( \{0, 1\}^n \) is a (cyclic) ordering of all binary strings of length \( n \) such that the Hamming distance (number of positions that are different) between any two consecutive strings is exactly one. The authors present a cyclic Gray code \( C_n \) whose graph of transitions is isomorphic to an induced subgraph of the \( d \)-dimensional hypercube, where \( d = \lceil \log n \rceil \). As a consequence, \( C_n \) can be represented so that only \( O(\log \log n) \) bits per \( n \)-length binary string are needed. Finally, they give a generating algorithm for the transition sequences of \( C_n \) in linear time with respect to the output size.

Reviewer: Jean-Luc Baril (Dijon)