- 1. encode k qubit in [n, 10k, d] good qLDPC code. With a reducing Lemma for threshold l.
- 2. implement X, Z, H, T in the straightforward way.
- 3. The CX, need more attention. Denote by g_i a generator of C and notice that we took only 1/10-fraction of the generator in the encoding process. Now, any CX will be followed by correction step. The idea we stretch a wire according predetermined match between the qubits in the support of g_i and the qubits in the support of g_j .
- 4. As we took only a fraction of the code space, we can require that any codeword spanned by the g_j 's has an overlap with g_i which less than l/3. Or in other words, the decoder can correct a non desire CX in single step \sim .

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