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On hypercube packings, blocking sets and a covering problem

K. Ashik Mathew, Patric R.J. Östergård

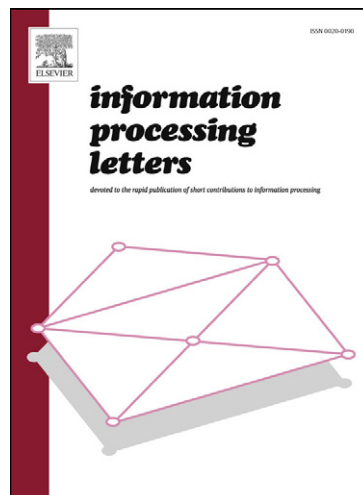
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Highlights

- A discrete n -dimensional torus of width 4 is packed with hypercubes of side 2.
- The minimum size of a non-extensible packing is denoted by $f(n)$.
- The minimum size of a blocking set is denoted by $h(n)$.
- Finding blocking sets is equivalent to a covering problem for graphs.
- We show that $f(5) = 12$, $f(6) = 16$, $h(6) = 15$ and $h(7) \leq 23$.

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