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LATTICE-LIKE TOTAL PERFECT CODES

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Abstract

A contribution is made to the classification of lattice-like total perfect codes in integer lattices Λ_n via pairs (G, Φ) formed by abelian groups G and homomorphisms $\Phi : \mathbb{Z}^n \to G$. A conjecture is posed that the cited contribution covers all possible cases. A related conjecture on the unfinished work on open problems on lattice-like perfect dominating sets in Λ_n with induced components that are parallel paths of length > 1 is posed as well.

Keywords: perfect dominating sets, hypercubes, lattices.

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