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## Minimum distance bounds for $s$-regular codes

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**Abstract** A code $C \subseteq F^n$ is $s$-regular provided, for every vertex $x \in F^n$, is $x$ is at distance at most $s$ from $C$ then the number of codewords $y \in C$ at distance $i$ from $x$ depends only on $i$ and the distance from $x$ to $C$. If $\rho$ denotes the covering radius of $C$ and $C$ is $\rho$-regular, then $C$ is said to be completely regular.
Suppose $C$ is a code with minimum distance $d$, strength $t$ as an orthogonal array, and dual degree $s^*$. We prove that $d \leq 2t + 1$ when $C$ is completely regular (with the exception of binary repetition codes). The same bound holds when $C$ is $(t+1)$-regular. For unrestricted codes, we show that $d \leq s^*+t$ unless $C$ is a binary repetition code.