Conditional Resolving Parameters on Enhanced Hypercube Networks

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Authors:
Bharati Rajan
Albert William
Indra Rajasingh
S. Prabhu

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Abstract
Given a graph $G = (V,E)$, a set $W \subseteq V$ is a resolving set if for each pair of distinct vertices $u, v \in V(G)$ there is a vertex $w \in W$ such that $d(u,w) \neq d(v,w)$. A resolving set containing a minimum number of vertices is called a minimum resolving set or a basis for $G$. The cardinality of a minimum resolving set is called the dimension of $G$ and is denoted by $\dim(G)$. A resolving set $W$ is said to be a one size resolving set if the size of the subgraph induced by $W$ is one, and a onefactor resolving set if $W$ induces isolated edges (one regular graph). The minimum cardinality of these sets denoted $\text{or}(G)$ and $\text{onef}(G)$ are called one size and one factor resolving numbers respectively. In this paper we investigate these resolving parameters for enhanced hypercube networks.
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References

- S. Kwancharone, V. Saenpholphat, C.M. Da Fonseca, One size resolvability of graphs, Pre-publicacões do Departamento de Matemática, Universidade de Coimbra, Preprint.
- B. Rajan, I. Rajasingh, P. Venugopal, M. Chris Monica, Minimum Metric Dimension of Illiac Networks, Ars Combin., (Accepted).
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