

Title

Error correcting codes from subspaces of edge spaces II

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A cycle space of a graph with a small number of vertices, a large number of edges, and a large smallest cycle generally produces a linear code with good error correcting capability. However finding such graphs is rather challenging without any known construction algorithms. In an attempt to find graph codes with good error correcting capability, we investigated codes generated by certain types of cycles from a graph. Also we constructed codes generated by subgraphs of a complete graph. Our attempt often resulted in a code close to the best known code.

Keywords: Edge space, Cycle space, Graph code, Error correcting code.