

Title: Strong coloring of hypercubes

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A vertex coloring of a graph is called a strong coloring when all vertices in a closed neighborhood of each vertex have different colors. The strong coloring is a variant of conflict-free coloring which was motivated by a frequency assignment problem in cellular networks. In this talk, we are interested in strong colorings of graphs, and naturally the chromatic number of such colorings. We consider strong colorings of simple graphs, and show that the chromatic number of strong colorings of an m -dimensional hypercube is bounded by $2m + 1$.

Keywords: Conflict free coloring, Strong coloring, Hypercube.