Distinguishing vertices of graphs using sequences

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In the paper [1] the authors distinguish vertices of a graph by sequences. This talk is about distinguishing vertices of a hypercube by sequences. Let f be the edge coloring of an n-dimensional hypercube. In a hypercube, we can define the order of edges, which results from the structure of this graph. Next, we can assign a sequence of colors to each vertex in such a way that the i-th element of this sequence is the color of the i-th edge coming from this vertex. We want to find a minimum number of colors to distinguish each pair of vertices in an n-dimensional hypercube.

References

[1] B. Seamone and B. Stevens, *Sequence variations of the 1-2-3 Conjecture and irregularity strength*, Discrete Mathematics and Theoretical Computer Science **15(1)** (2013), 15–28.

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