An oriented coloring of vertices of a directed graph $G$ is a homomorphism from $G$ to $H$ such that $H$ is without selfloops and arcs in opposite directions. We shall say that $H$ is a coloring graph.

In the talk we focus on the oriented coloring of Cartesian products of two paths, called grids. We show that there exists a coloring graph with nine vertices that can be used to color every orientation of grids with five columns.

Keywords: graphs, oriented coloring, grids.

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References