

Cubic graphs, edge-colorings and 5 colors

Borut Lužar

We will focus on edge-colorings of cubic graphs which we can realize using just five colors. We will begin with a recent result on the strong edge-coloring, continuing by introducing related results and a number of open problems on this topic. The main message of the talk is that one additional color transforms a (just) proper edge-coloring into various proper edge-colorings with essentially different properties.