

Coloring the angles of an imbedded graph

Isidoro Gitler
CINVESTAV-IPN

Given a graph imbedded on a surface we ask for the least number of colors needed to color its angles in such a way that the angles incident to a vertex all have different color, the angles on each face have different colors and the four angles incident to an edge have two colors.

This question is related to the arf-invariant, straight decomposition of medial graphs, circuits of certain matroids and intercalate matrices.