
CHRISTOPHER MARTIN VAN BOMMEL, St. Francis Xavier University

An Extension of Parity Vertex Colourings

Parity vertex colourings are proper colourings such that each colour is incident with each face either zero or an odd number of times. In this talk, an extension of parity vertex colourings, proper S_p -vertex colourings, are introduced. A colouring of a plane graph is a proper S_p -vertex colouring if it is proper and for each face and each colour, the number of times the colour is incident with the face is zero or is congruent to 1 mod p . We will discuss an upper bound on the proper S_p -vertex chromatic number for all plane graphs.