

DE LA SALLE UNIVERSITY

ON DESIGNS WITH MINIMAL HARMONIOUS COLOURINGS

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ABSTRACT

This thesis is an exposition of the research paper entitled "Minimal harmonious colourable designs" by L.R.A. Casse, Christine M. O'Keefe and B.J. Wilson. A minimal harmoniously colourable design or an MH-colourable design is one whose incidence graph has exactly one edge whose vertices are coloured c_i, c_j for every pair of colours c_i, c_j used. In the case of symmetric designs, a certain type of Hadamard designs were shown to be MH-colourable. Also, some families of non-symmetric MH-colourable design were constructed.



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