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CHROMATIC POLYNOMIALS OF MIXED HYPERCYCLES

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Abstract

We color the vertices of each of the edges of a $\mathcal{C}$-hypergraph (or cohypergraph) in such a way that at least two vertices receive the same color and in every proper coloring of a $\mathcal{B}$-hypergraph (or bihypergraph), we forbid the cases when the vertices of any of its edges are colored with the same color (monochromatic) or when they are all colored with distinct colors (rainbow). In this paper, we determined explicit formulae for the chromatic polynomials of $\mathcal{C}$-hypercycles and $\mathcal{B}$-hypercycles.

Keywords: hypercycle, mixed hypergraph, chromatic polynomial.

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