Milazzo, Lorenzo; Tuza, Zsolt; Voloshin, Vitaly

Strict colorings of Steiner triple and quadruple systems: A survey. (English) Zbl 1008.05025

Summary: The paper surveys problems, results and methods concerning the coloring of Steiner triple and quadruple systems viewed as mixed hypergraphs. In this setting, two types of conditions are considered: each block of the Steiner system in question has to contain (i) a monochromatic pair of vertices, or, more restrictively, (ii) a triple of vertices that meets precisely two color classes.

MSC:
05B07 Triple systems
05C15 Coloring of graphs and hypergraphs
05-02 Research exposition (monographs, survey articles) pertaining to combinatorics

Keywords:
mixed hypergraphs; color classes

Full Text: DOI