Diffuse Difference Triangle Sets*

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Abstract: A particular kind of difference triangle sets (DTS's) called *diffuse DTS* (DDTS) are considered. Their combinatorial structure is underlying the construction of all known types of self-orthogonal diffuse codes. A number of constructions of DDTS are described, and lower and upper bounds on the maximal element of on optimal DDTS are given. The asymptotic behaviour of the maximal element is studied. Finally, tables of DDTS and of their minimal possible maximal elements are presented.

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