Classification of Finite Group-Frames and Super-Frames

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Abstract. Given a finite group $G$, we examine the classification of all frame representations of $G$ and the classification of all $G$-frames, i.e., frames induced by group representations of $G$. We show that the exact number of equivalence classes of $G$-frames and the exact number of frame representations can be explicitly calculated. We also discuss how to calculate the largest number $L$ such that there exists an $L$-tuple of strongly disjoint $G$-frames.