

## The Brauer-Clifford group

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### ABSTRACT

Clifford Theory provides well behaved character correspondences between different groups which have isomorphic quotients. Given one such quotient group, we define the Brauer-Clifford group. We show that each character of the original groups gives rise to a specific element of the Brauer-Clifford group. When two characters of different groups yield the same element of the Brauer-Clifford group, we obtain a very well behaved character correspondence between the characters of the different groups, which preserves not only induction, restriction, multiplicities, but also fields of values for the corresponding characters, and Schur indices. We also show that the Brauer-Clifford group has a natural homomorphism into a Brauer group. The Brauer-Clifford group can be thought of as a refinement of the previously introduced Clifford classes.

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