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   Soggetti   Finite geometries
                           Difference sets

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   Nota di contenuto   Preliminaries: Incidence structures with singer groups -- Examples:
                           Existence and non-existence -- Difference sets with classical
                           parameters -- Semiregular relative difference sets -- Projective planes
                           with quasiregular collineation groups -- Codes and sequences.

   Sommario/riassunto   Difference sets are of central interest in finite geometry and design
                           theory. One of the main techniques to investigate abelian difference
                           sets is a discrete version of the classical Fourier transform (i.e.,
                           character theory) in connection with algebraic number theory. This
                           approach is described using only basic knowledge of algebra and
                           algebraic number theory. It contains not only most of our present
                           knowledge about abelian difference sets, but also gives applications of
                           character theory to projective planes with quasiregular collineation
                           groups. Therefore, the book is of interest both to geometers and
                           mathematicians working on difference sets. Moreover, the Fourier
                           transform is important in more applied branches of discrete
                           mathematics such as coding theory and shift register sequences.