

1117-05-228

Robert W. Peck* (rpeck@lsu.edu), 102 School of Music, Louisiana State University, Baton Rouge, LA 70803. *A classification of all-interval chords of small order.*

An all-interval chord is a set of musical pitches such that one and only one interval of each size occurs between pairs of its members. All interval chords are related to planar difference sets in combinatorics (i.e., those with $\lambda = 1$); however, they may also be inclusive of one or more involutions. We provide a categorization of all-interval chords of small order ($k \leq 10$), including those with cyclic, non-cyclic abelian, and non-abelian interval groups. (Received January 14, 2016)