1001-11-178 **Norman A Carey*** (`ncarey@esm.rochester.edu`) and **David L Clampitt** (`david.clampitt@yale.edu`). *Musical Properties of Quasi-Periodic Sequences.*

Clough and Myerson (1985) demonstrate the conditions that allow for two powerful properties to manifest in musical scales, Cardinality Equals Variety (CV), and Structure Yields Multiplicity (SM). CV exists when the number of distinct types of ordered lines is the same as the number of distinct pitch classes in the line, for all such ordered lines. SM provides the actual distribution of the different types. Carey and Clampitt 1996 present infinite quasi-periodic sets that can be interpreted either as infinite scales or as rhythmic patterns. These rhythmic patterns have similarities to those studied in Rahn 1987, in Pressing 1993, and in Canright 1992. In this paper, we show how CV and a form of SM apply to the quasi-periodic sequences. Because octave equivalence is inoperative in these sequences, it is possible to frame the questions purely in terms of "chords," rather than "lines." We will prove that n-note "chords" come in n varieties in the infinite sequences and that the distribution of the varieties can be determined through stochastic methods. (Received August 24, 2004)