

**Profiling Common Practice Period Western Art Music
Through Traditional Music Analysis and Statistical Methods**

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ABSTRACT

Western art music of the Common Practice Period (1700-1900) have traditionally been divided into three – Baroque, Classical, and Romantic. This paper aims to define metrics to characterize classical music and to identify profile the music based on the aforementioned characteristics, and to provide evidence for musical groupings other than the three periods mentioned above. A sample of forty-five pieces spanning the three periods was used. Both hierarchical and partitioning algorithms were applied so that the music maybe grouped based on the metrics. Two profiling methods were developed; the first method formed eight clusters representing classical music styles/forms of the time. The second method, using a subset of the variables, formed six clusters from using the variables of dynamics, tempo, and modulations.

Keywords: unsupervised learning; hierarchical clustering; classical music