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Katherine M. Kinnaird* (katherine.m.kinnaird.gr@dartmouth.edu), 6188 Kemeny Hall, 27 N. Main Street, Hanover, NH 03755. *Hierarchical Representation for High-Dimensional Data in Music Structure Tasks*. Preliminary report.

We propose a novel hierarchical representation for high-dimensional, time-sequenced data that encodes relevant size-appropriate information at several scales. We apply this representation to Music Information Retrieval (MIR) structure tasks, by building a signature for each digital score in our data set of Chopin Mazurka scores. This signature captures repeated structure at several scales and is naturally hierarchical. Given a particular MIR structure task, such as locating a chorus or motif of a given musical song or score, we restrict our analysis to found repetitions of a task-appropriate range of scales. Including repetitive structure of all possible scales allows our representation to be applicable to a more diverse set of MIR structure tasks than other structure representations in the literature that focus only on the coarsest level of structure. (Received September 17, 2013)