

A Representation of Musical Possibilities as Permutations in a Matrix

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Abstract

In this paper, we display the infinities of mathematics and music as being captured in a singular matrix, thus capturing all musical possibilities and representing them numerically utilizing permutations with exact certainty and finitude.

mathematical representation of all musical potentialities in permutations in a matrix

Matrix 1. [a]

06857E439T12
602E15T93478
4T09E3871256
713026ET4589
5E1T04982367
17968054TE23
8241370E569T
9352481067TE
39E8T2760145
28T79165E034
E5746T328901
T463592178E0

The matrix 1. [a] includes all musical possibilities represented as permutations in a matrix. We find this interesting to note on an aside that any infinite system is reducible to a finite subsystem (or a subsystem that represents a comprehensive macro-system). The intersection of music with mathematics is interesting, as it suggests that infinity, even in abstraction, can still be reduced to a finite system in the form of permutations.