

MTO 2.7 Examples: Isaacson, Issues in the Study of Similarity in Atonal Music

(Note: audio, video, and other interactive examples are only available online)

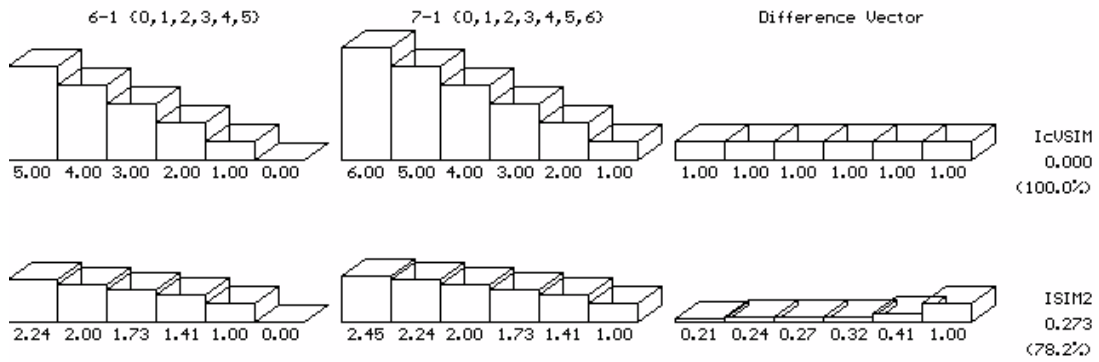
<http://www.mtosmt.org/issues/mto.96.2.7/mto.96.2.7.isaacson.php>

Table 1. Comparison of EMB numbers with REL and RECREL values for each tetrachord and set class 7-28. Listed within the two major columns are (1) the Forte number, (2) prime form, (3) interval-class vector, (4) percentile value for that set class and 7-28 under the given function, and (5) embedding number for that set class and 7-28. Each major column is sorted on the percentile column. The percentile value reflects the position of a given value among the values produced by all pairs involving set classes of size 2 through 10. This arranges values for both functions on a continuous scale from 100 (maximum) to 0 (minimum similarity).

Cardinality 4 in 7-28 (0,1,3,5,6,7,9) [344433]

REL	Pctl.	EMB	RECREL	Pctl.	EMB
4Z15 (0146) [111111]	54.1	2	4Z15 (0146) [111111]	82.8	2
4Z29 (0137) [111111]	54.1	2	4Z29 (0137) [111111]	82.8	2
4-12 (0236) [112101]	49.5	3	4-12 (0236) [112101]	58.3	3
4-27 (0258) [012111]	49.5	3	4-27 (0258) [012111]	58.3	3
4-13 (0136) [112011]	46.6	3	4-18 (0147) [102111]	51.0	3
4-18 (0147) [102111]	46.6	3	4-13 (0136) [112011]	50.3	3
4-11 (0135) [121110]	40.4	2	4-11 (0135) [121110]	45.7	2
4-5 (0126) [210111]	39.1	1	4-5 (0126) [210111]	42.0	1
4-16 (0157) [110121]	39.1	1	4-16 (0157) [110121]	42.0	1
4-2 (0124) [221100]	33.8	2	4-4 (0125) [211110]	37.9	0
4-22 (0247) [021120]	33.8	2	4-14 (0237) [111120]	37.9	0
4-19 (0148) [101310]	31.2	2	4-2 (0124) [221100]	27.7	2
4-4 (0125) [211110]	30.6	0	4-22 (0247) [021120]	27.7	2
4-14 (0237) [111120]	30.6	0	4-17 (0347) [102210]	26.5	0
4-24 (0248) [020301]	28.6	2	4-3 (0134) [212100]	26.1	0
4-21 (0246) [030201]	27.1	2	4-26 (0358) [012120]	26.1	0
4-6 (0127) [210021]	25.4	1	4-10 (0235) [122010]	25.6	0
4-8 (0156) [200121]	25.4	1	4-7 (0145) [201210]	24.2	0
4-3 (0134) [212100]	23.3	0	4-20 (0158) [101220]	24.2	0
4-26 (0358) [012120]	23.3	0	4-19 (0148) [101310]	23.6	2
4-10 (0235) [122010]	22.6	0	4-8 (0156) [200121]	21.4	1
4-17 (0347) [102210]	22.6	0	4-25 (0268) [020202]	19.8	1
4-25 (0268) [020202]	22.6	1	4-6 (0127) [210021]	18.9	1
4-7 (0145) [201210]	20.8	0	4-21 (0246) [030201]	18.6	2
4-20 (0158) [101220]	20.8	0	4-24 (0248) [020301]	18.2	2
4-9 (0167) [200022]	18.1	1	4-1 (0123) [321000]	14.6	0
4-1 (0123) [321000]	15.5	0	4-23 (0257) [021030]	14.6	0
4-23 (0257) [021030]	15.5	0	4-9 (0167) [200022]	13.8	1
4-28 (0369) [004002]	15.0	1	4-28 (0369) [004002]	9.2	1

Example 1. Similarity of Set Classes 6-1 and 7-1



Example 2.

A *mf*

B *f p f*

C

D

E

Example 3. Schoenberg, op. 19, no. 4, measures 1-2

0.92 (5.0%)

2-6

5Z17

Example 4. Schoenberg, op. 19, no. 4, measures 3–5

Example 4 shows measures 3, 4, and 5 of Schoenberg's op. 19, no. 4. The score is annotated with intervals and their percentages:

- Interval 1.02 (2.9%) is shown between measures 3 and 4.
- Interval 1.30 (0.3%) is shown between measures 4 and 5.
- Interval 1.22 (0.8%) is shown between measures 4 and 5.
- Interval 0.84 (8.0%) is shown between measures 3 and 4.
- Interval 0.75 (12.7%) is shown between measures 3 and 4.
- Interval 1.04 (2.5%) is shown between measures 4 and 5.

Other annotations include interval labels: 6-2, 5-33, 4-23, and 4-19.

Example 5. Schoenberg, op. 19, no. 4, measures 6–9

Example 5 shows measures 6, 7, 8, and 9 of Schoenberg's op. 19, no. 4. The score is annotated with intervals and their percentages:

- Interval 0.96 (4.0%) is shown between measures 6 and 7.
- Interval 0.81 (9.5%) is shown between measures 6 and 7.
- Interval 0.315 (70.6%) is shown between measures 8 and 9.

Other annotations include interval labels: 4-9, 5-8, 4-18, 7-34, and 4Z29.

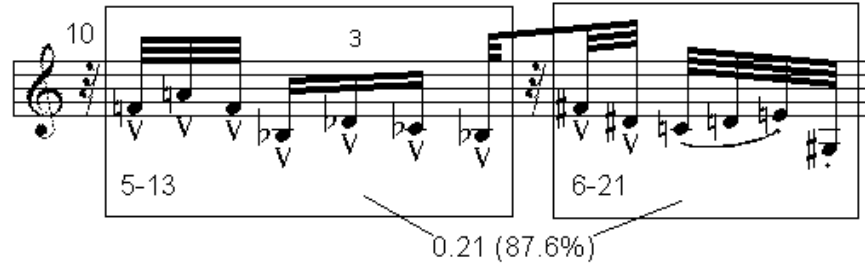
Example 6. Schoenberg, op. 19, no. 4, measures 11–13

Example 6 shows measures 11, 12, and 13 of Schoenberg's op. 19, no. 4. The score is annotated with intervals and their percentages:

- Interval 0.81 (9.5%) is shown between measures 11 and 12.

Other annotations include interval labels: 5-27 and 4-12.

Example 7. Schoenberg, op. 19, no. 4, measure 10



Example 8. Schoenberg, op. 19, no. 4, measures 3-5 (right hand)

