





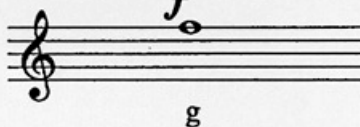
MTO 23.4 Examples: Andersen, Approaches to Analysis and Performance in John Cage's *Four*²

(Note: audio, video, and other interactive examples are only available online)
<http://www.mtosmt.org/issues/mto.17.23.4/mto.17.23.4.andersen.php>

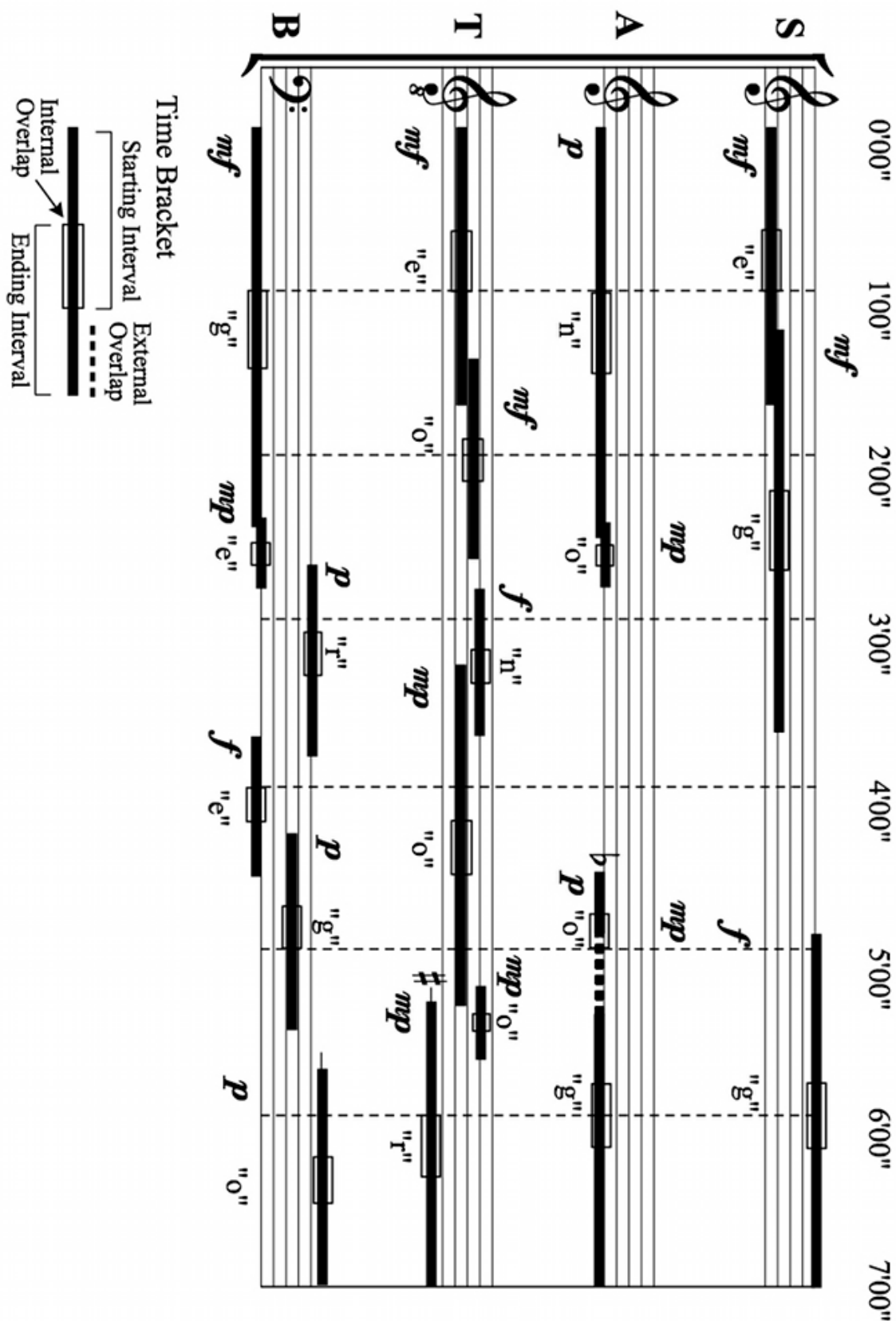
Example 1. Soprano Part of *Four*²

FOUR²

SOPRANOS John Cage

0'00" ↔ 1'00"	0'40" ↔ 1'40"
	
1'10" ↔ 2'40"	2'10" ↔ 3'40"
	
4'55" ↔ 6'10"	5'50" ↔ 7'00"
	

Example 2. A Transcription of the Time-Bracket Structure of *Four*²



Example 3. Prevalence of All Pitch Class Sets in All Simulations, Organized by Set Class

Set Class	PC Set	Seconds	Percentage
Silence	(null)	62611	13.56
Totals	1	62611	13.56

Set Class	PC Set	Seconds	Percentage
sc0	pc0	9948	2.155
	pc1	18654	4.041
	pc2	18036	3.907
	pc4	9765	2.116
	pc5	31914	6.914
	pc7	16998	3.683
	pc9	38806	8.407
	pc11	4799	1.040
	pc55	4342	0.941
pc77	3133	0.679	
pc99	992	0.215	
Totals	11	157387	34.10

Set Class	PC Set	Seconds	Percentage
sc05	pc05	6095	1.320
	pc07	10661	2.310
	pc27	4998	1.083
	pc29	13853	3.001
	pc49	7605	1.648
pc055	42	0.009	
pc077	422	0.091	
pc277	14	0.003	
Totals	8	43690	9.465

Set Class	PC Set	Seconds	Percentage
sc013	pc124	171	0.037
	pc245	326	0.071
	pc457	13	0.003
Totals	3	510	0.110

Set Class	PC Set	Seconds	Percentage
sc037	pc047	614	0.133
	pc149	5595	1.212
	pc259	11697	2.534
	pc0477	451	0.098
pc2559	9529	2.064	
Totals	5	27886	6.041
sc048	pc159	160	0.035
Totals	1	160	0.035

Set Class	PC Set	Seconds	Percentage
sc01	pc01	7472	1.619
	pc12	2405	0.521
	pc45	1184	0.257
pc011	4991	1.081	
Totals	4	16052	3.478

Set Class	PC Set	Seconds	Percentage
sc02	pc02	3545	0.768
	pc24	527	0.114
	pc57	2357	0.511
	pc79	5309	1.150
	pc799	84	0.018
Totals	5	11822	2.561

Set Class	PC Set	Seconds	Percentage
sc014	pc125	1889	0.409
	pc145	879	0.190
Totals	2	2768	0.600

Set Class	PC Set	Seconds	Percentage
sc015	pc015	8640	1.872
	pc045	3	0.001
	pc459	103	0.022
pc0115	8495	1.840	
Totals	4	17241	3.735

Set Class	PC Set	Seconds	Percentage
sc024	pc579	118	0.026
Totals	1	118	0.026

Set Class	PC Set	Seconds	Percentage
sc0134	pc1245	138	0.030
Totals	1	138	0.030

Set Class	PC Set	Seconds	Percentage
sc0148	pc1459	137	0.030
Totals	1	137	0.030

Set Class	PC Set	Seconds	Percentage
sc0237	pc0457	3	0.001
Totals	1	3	0.001

Set Class	PC Set	Seconds	Percentage
sc03	pc14	9923	2.150
	pc25	17230	3.733
	pc47	4872	1.056
	pc255	6269	1.358
pc477	4533	0.982	
Totals	5	42827	9.278

Set Class	PC Set	Seconds	Percentage
sc04	pc04	131	0.028
	pc15	15365	3.329
	pc19	2800	0.607
	pc59	24664	5.343
	pc115	9265	2.007
pc559	5873	1.272	
Totals	6	58098	12.587

Set Class	PC Set	Seconds	Percentage
sc025	pc025	2568	0.556
	pc257	2600	0.563
	pc479	254	0.055
pc0255	111	0.024	
Totals	4	5533	1.199

Set Class	PC Set	Seconds	Percentage
sc027	pc027	3405	0.738
	pc057	3735	0.809
	pc279	4645	1.006
pc0277	4	0.001	
Totals	4	11789	2.554

Set Class	PC Set	Seconds	Percentage
sc0247	pc2579	300	0.065
Totals	1	300	0.065

Set Class	PC Set	Seconds	Percentage
sc0257	pc0257	2509	0.544
Totals	1	2509	0.544

Set Class	PC Set	Seconds	Percentage
sc0358	pc0479	1	0.0002
Totals	1	1	0.0002

Example 4. Prevalence of All Pitch Class Sets in All Simulations, Organized by Cardinality

Cardinality 0		
pcs	Seconds	Percentage
(null)	62611	13.56
Totals		
1	62611	13.56

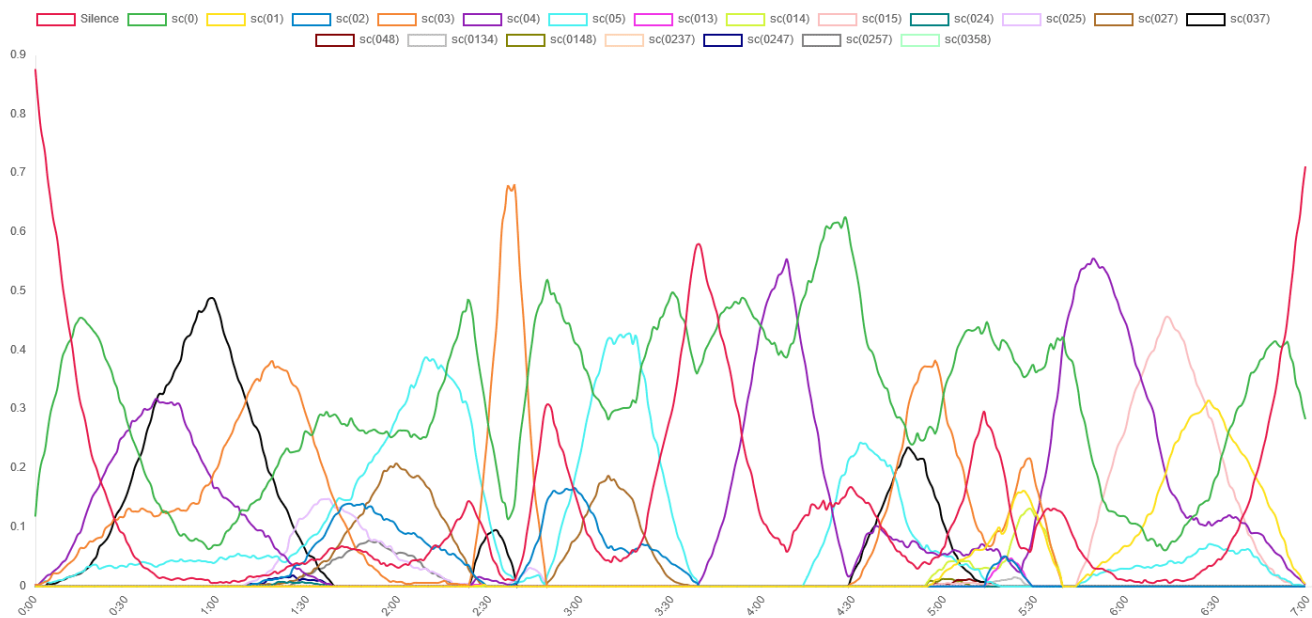
Cardinality 1		
pcs	Seconds	Percentage
pc0	9948	2.155
pc1	18654	4.041
pc2	18036	3.907
pc4	9765	2.116
pc5	31914	6.914
pc7	16998	3.683
pc9	38806	8.407
Totals		
7	144121	31.22

Cardinality 2		
pcs	Seconds	Percentage
pc01	7472	1.619
pc02	3545	0.768
pc04	131	0.028
pc05	6095	1.320
pc07	10661	2.310
pc11	4799	1.040
pc12	2405	0.521
pc14	9923	2.150
pc15	15365	3.329
pc19	2800	0.607
pc24	527	0.114
pc25	17230	3.733
pc27	4998	1.083
pc29	13853	3.001
pc45	1184	0.257
pc47	4872	1.056
pc49	7605	1.648
pc55	4342	0.941
pc57	2357	0.511
pc59	24664	5.343
pc77	3133	0.679
pc79	5309	1.150
pc99	992	0.215
Totals		
23	154262	33.42

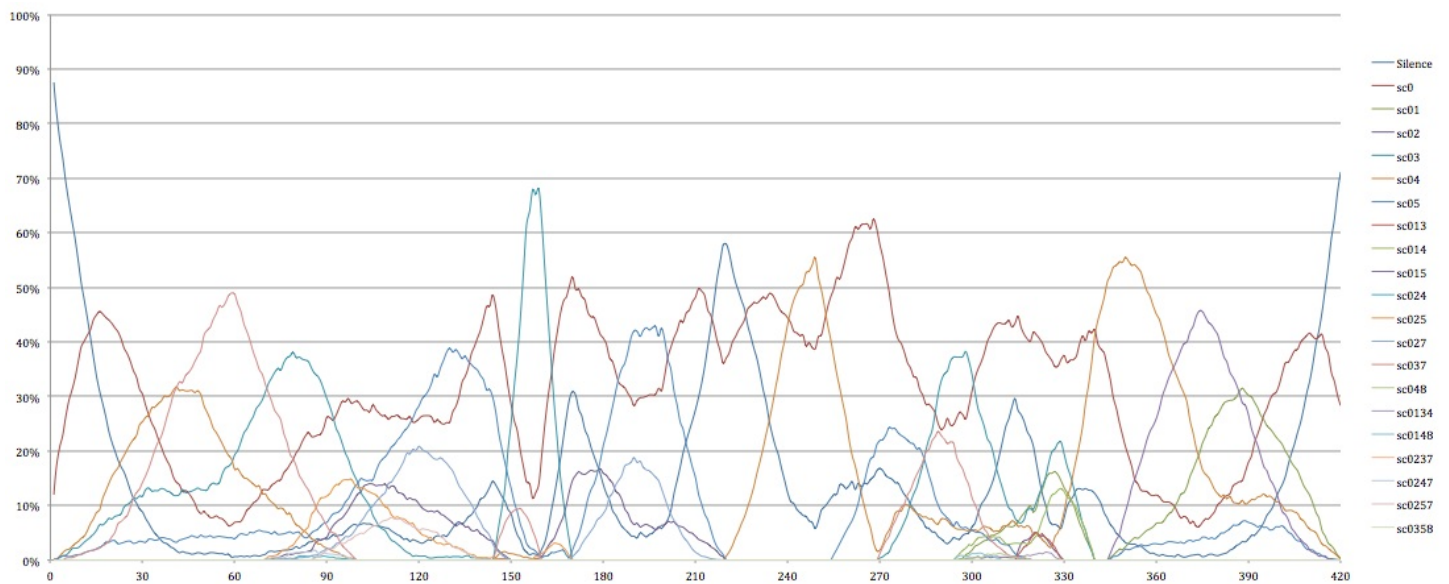
Cardinality 3		
pcs	Seconds	Percentage
pc011	4991	1.081
pc015	8640	1.872
pc025	2568	0.556
pc027	3405	0.738
pc045	3	0.001
pc047	614	0.133
pc055	42	0.009
pc057	3735	0.809
pc077	422	0.091
pc115	9265	2.007
pc124	171	0.037
pc125	1889	0.409
pc145	879	0.190
pc149	5595	1.212
pc159	160	0.035
pc245	326	0.071
pc255	6269	1.358
pc257	2600	0.563
pc259	11697	2.534
pc277	14	0.003
pc279	4645	1.006
pc457	13	0.003
pc459	103	0.022
pc477	4533	0.982
pc479	254	0.055
pc559	5873	1.272
pc579	118	0.026
pc799	84	0.018
Totals		
28	78908	17.10

Cardinality 4		
pcs	Seconds	Percentage
pc0115	8495	1.840
pc0255	111	0.024
pc0257	2509	0.544
pc0277	4	0.001
pc0457	3	0.001
pc0477	451	0.098
pc0479	1	0.0002
pc1245	138	0.030
pc1459	137	0.030
pc2559	9529	2.064
pc2579	300	0.065
Totals		
11	21678	4.696

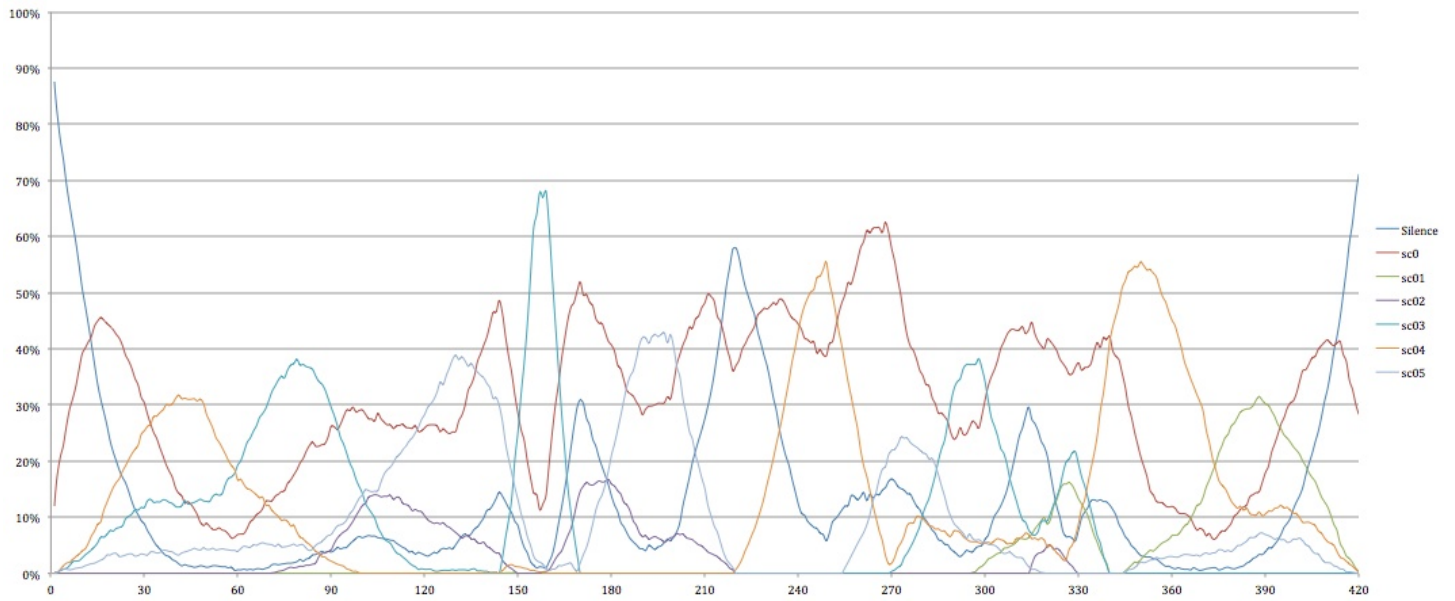
Example 5a. Prevalence of Set Classes Over Time in Simulations of $Four^2$



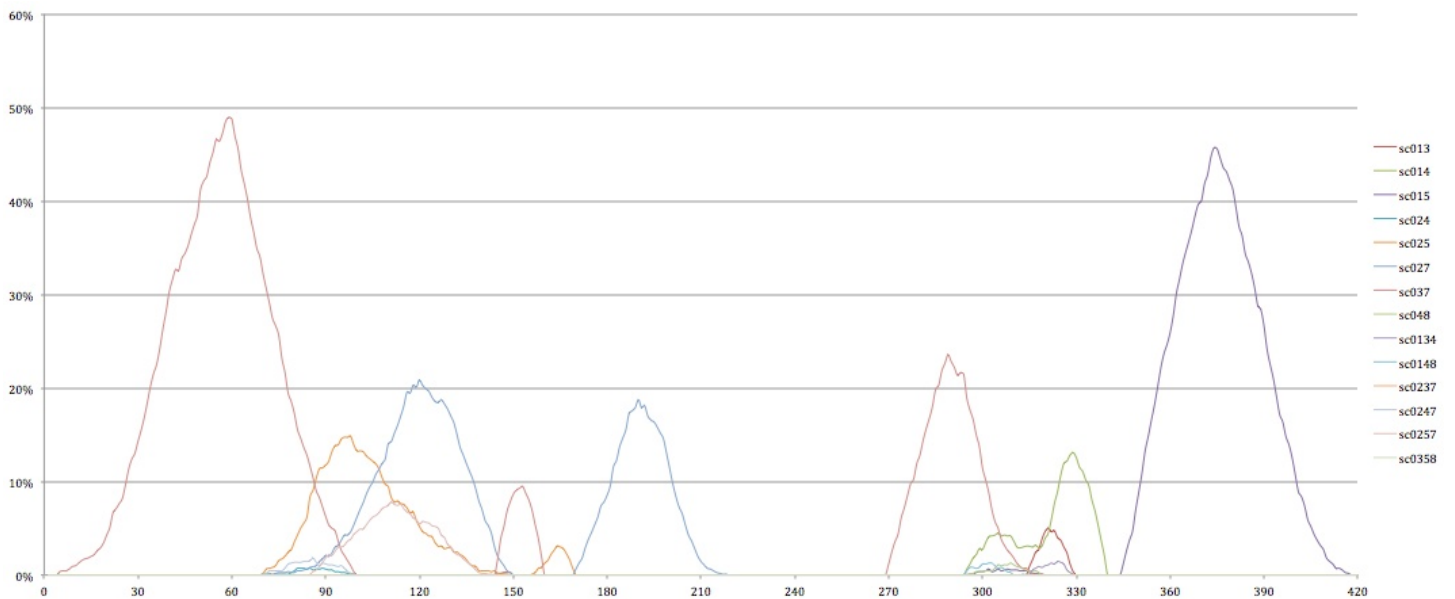
Example 5b. Prevalence of Set Classes Over Time in Simulations of $Four^2$
(All Cardinalities)



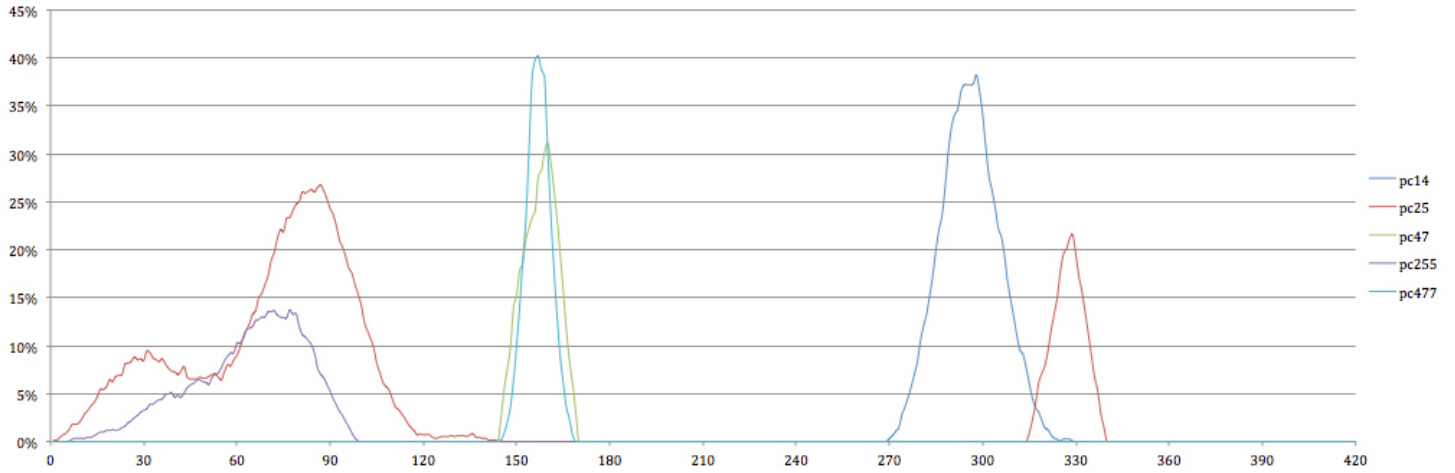
Example 5c. Prevalence of Set Classes Over Time in Simulations of $Four^2$
(Cardinalities 0–2)



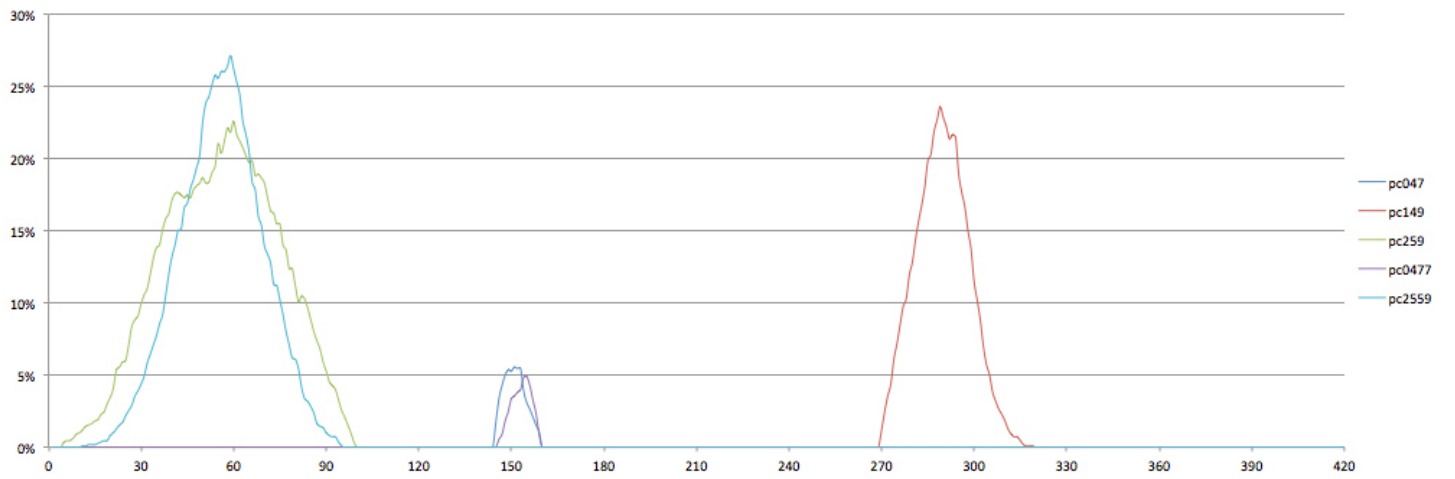
Example 5d. Prevalence of Set Classes Over Time in Simulations of $Four^2$
(Cardinalities 3–4)



Example 6. Prevalence of Set Class (03) Over Time



Example 7. Prevalence of Set Class (037) Over Time



Example 8. Soportia's Interpretation of *Four*²

0'00" 1'00" 2'00" 3'00" 4'00" 5'00" 6'00" 7'00"

S *mf* "e" *mf* "g" *f* "g"

A *p* "n" *mp* "o" *p* "o" *mp* "g"

T *mf* "e" *mf* "o" *f* "n" *mp* "o" *mp* "o" *mp* "r"

B *mf* "g" *mp* "e" *p* "r" *f* "e" *p* "g" *p* "o"

Example 9. C Major and Surrounding Fifths (Soportia)

0'00" 1'00" 2'00" 3'00" 4'00" 5'00" 6'00" 7'00"

S *mf* "e" *mf* "g" *f* "g"

A *p* "n" *mp* "o" *p* "o" *mp* "g"

T *mf* "e" *mf* "o" *f* "n" *mp* "o" *mp* "o" *mp* "r"

B *mf* "g" *mp* "e" *p* "r" *f* "e" *p* "g" *p* "o"

Annotations:
 - C major (blue box)
 - ic5 (F-C) (green box)
 - ic5 (A-E) (red box)
 - third of C major chord (black box)
 - third of d minor chord (black box)

Example 10. A Major and Surrounding Fifths (Soportia)

Example 10 is a musical score for four vocal parts: Soprano (S), Alto (A), Tenor (T), and Bass (B). The score is divided into time intervals from 0'00" to 7'00".

- Soprano (S):** Starts with *mf* "e" (0'00"-1'00"), *mf* "g" (2'00"-3'00"), and *f* "g" (5'00"-6'00").
- Alto (A):** Starts with *p* "n" (0'00"-1'00"), *mp* "o" (2'00"-3'00"), *p* "o" (4'00"-5'00"), and *mp* "g" (6'00"-7'00").
- Tenor (T):** Starts with *mf* "e" (0'00"-1'00"), *mf* "o" (2'00"-3'00"), *f* "n" (3'00"-4'00"), *mp* "o" (4'00"-5'00"), *mp* "o" (5'00"-6'00"), and *mp* "r" (6'00"-7'00").
- Bass (B):** Starts with *mf* "g" (0'00"-1'00"), *mp* "e" (2'00"-3'00"), *p* "r" (3'00"-4'00"), *f* "e" (4'00"-5'00"), *p* "g" (5'00"-6'00"), and *p* "o" (6'00"-7'00").

Annotations and Interval Inversions:

- ic5 (F-C):** Green box around Soprano "e" and Bass "e" (1'00"-2'00").
- ic5 (D-A):** Blue box around Tenor "n" and Bass "r" (3'00"-4'00").
- ic5 (C-F):** Green box around Soprano "g" and Bass "o" (6'00"-7'00").
- A major:** Red box around Alto "o" and Bass "g" (5'00"-6'00").
- Interval inversion of C and F (ic5):** Green arrow pointing from Soprano "g" (2'00") to Alto "o" (3'00").

Example 11. Possibilities for Sustained Drones on A and F

Example 11 is a musical score for four vocal parts: Soprano (S), Alto (A), Tenor (T), and Bass (B). The score is divided into time intervals from 0'00" to 7'00".

- Soprano (S):** Starts with *mf* "e" (0'00"-1'00"), *f* "g" (5'00"-6'00").
- Alto (A):** Empty.
- Tenor (T):** Starts with *mf* "e" (0'00"-1'00"), *mp* "o" (3'00"-4'00").
- Bass (B):** Starts with *mf* "g" (0'00"-1'00"), *p* "r" (2'00"-3'00"), *f* "e" (4'00"-5'00").

Annotations and Feasibility:

- Sustained F:** Box above Soprano "e" (0'00"-1'00").
- Sustained A:** Box above Tenor "e" (0'00"-1'00").
- No F Possible:** Boxes above Soprano "g" (2'30"-3'20") and Soprano "g" (4'30"-4'55").
- No A Possible:** Boxes below Bass "e" (1'40"-2'35") and Bass "e" (5'20"-7'00").
- Direct (no pause):** Solid arrow from Soprano "e" to Bass "e" (4'00"-5'00").
- Indirect (with pause):** Dashed arrow from Soprano "e" to Bass "r" (2'00"-3'00").

Example 12. Acuta's Interpretation of *Four*²

0'00" 1'00" 2'00" 3'00" 4'00" 5'00" 6'00" 7'00"

S *mf* "e" *mf* "g" *f* "g"

A *p* "n" *mp* "o" *p* "o" *mp* "g"

T *mf* "e" *mf* "o" *f* "n" *mp* "o" *mp* "o" *mp* "r"

B *mf* "g" *mp* "e" *p* "r" *f* "e" *p* "g" *p* "o"

Example 13. Destabilization of Opening D-Minor Sonority (Acuta)

0'00" 1'00" 2'00" 3'00" 4'00" 5'00" 6'00" 7'00"

S *mf* "e" *mf* "g" *f* "g"

A *p* "n" *mp* "o" *p* "o" *mp* "g"

T *mf* "e" *mf* "o" *f* "n" *mp* "o" *mp* "o" *mp* "r"

B *mf* "g" *mp* "e" *p* "r" *f* "e" *p* "g" *p* "o"

Annotations: d minor, C major, ic2

Example 14. Emphasis on ic1 at the End of the Piece (Acuta)

Example 14 is a musical score for four vocal parts: Soprano (S), Alto (A), Tenor (T), and Bass (B). The score is divided into time intervals from 0'00" to 7'00".

- Soprano (S):** Notes "e" (0'00"-1'00", *mf*), "g" (1'00"-2'00", *mf*), "g" (4'00"-5'00", *f*), and "g" (5'00"-6'00", *f*).
- Alto (A):** Notes "n" (1'00"-2'00", *p*), "o" (2'00"-3'00", *mp*), "o" (4'00"-5'00", *p*), and "g" (5'00"-6'00", *mp*).
- Tenor (T):** Notes "e" (0'00"-1'00", *mf*), "o" (1'00"-2'00", *mf*), "n" (3'00"-4'00", *f*), "o" (4'00"-5'00", *mp*), "o" (5'00"-6'00", *mp*), and "r" (6'00"-7'00", *mp*).
- Bass (B):** Notes "g" (0'00"-1'00", *mf*), "e" (2'00"-3'00", *mp*), "r" (3'00"-4'00", *p*), "e" (4'00"-5'00", *f*), "g" (4'00"-5'00", *p*), and "o" (6'00"-7'00", *p*).

Annotations include:

- A green vertical bar labeled "sc (0134)" spanning the Soprano and Alto parts from approximately 4'30" to 5'00".
- A red vertical bar labeled "sc (01)" spanning the Tenor and Bass parts from approximately 6'30" to 7'00".
- A black box labeled "longest sustained sound" with an arrow pointing to the Bass part between 4'00" and 5'00".

Example 15. Varia's Interpretation of *Four*²

Example 15 is a musical score for four vocal parts: Soprano (S), Alto (A), Tenor (T), and Bass (B). The score is divided into time intervals from 0'00" to 7'00".

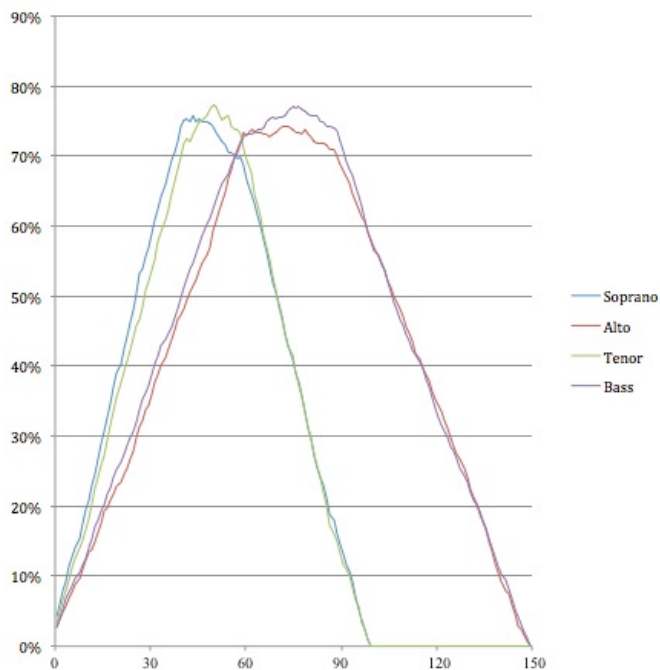
- Soprano (S):** Notes "e" (0'00"-1'00", *mf*), "g" (2'00"-3'00", *mf*), and "g" (5'00"-6'00", *f*).
- Alto (A):** Notes "n" (1'00"-2'00", *p*), "o" (2'00"-3'00", *mp*), "o" (4'00"-5'00", *p*), and "g" (5'00"-6'00", *mp*).
- Tenor (T):** Notes "e" (0'00"-1'00", *mf*), "o" (1'00"-2'00", *mf*), "n" (3'00"-4'00", *f*), "o" (4'00"-5'00", *mp*), "o" (5'00"-6'00", *mp*), and "r" (6'00"-7'00", *mp*).
- Bass (B):** Notes "g" (0'00"-1'00", *mf*), "e" (2'00"-3'00", *mp*), "r" (3'00"-4'00", *p*), "e" (4'00"-5'00", *f*), "g" (5'00"-6'00", *p*), and "o" (6'00"-7'00", *p*).

Example 16a. First Four Time Brackets of *Four*²: Transcription of the First Time Bracket for Each Part

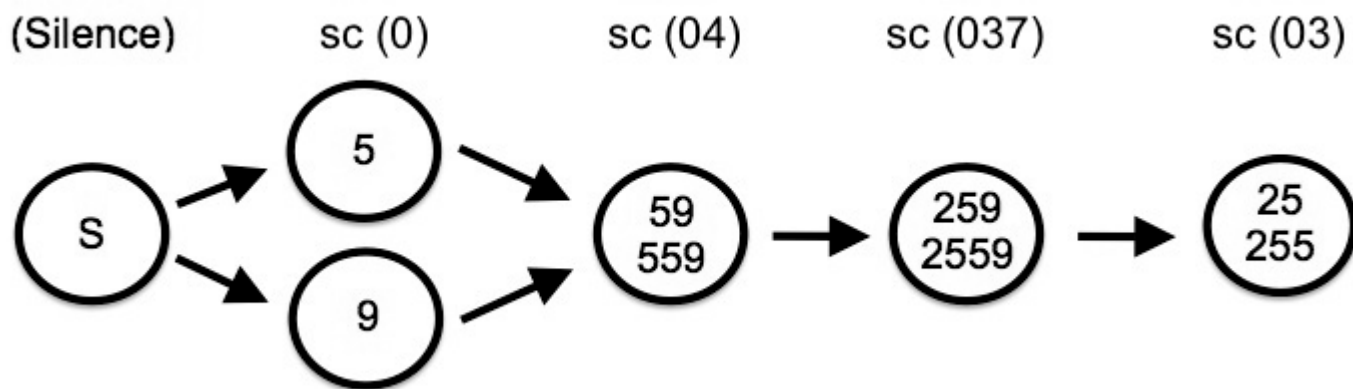
The image shows a musical score for four voices: Soprano (S), Alto (A), Tenor (T), and Bass (B). The time axis is marked at 0'00", 1'00", and 2'00".

- Soprano (S):** Treble clef, *mf* dynamic. A bracket labeled "e" spans from approximately 0:05 to 1:05.
- Alto (A):** Treble clef, *p* dynamic. A bracket labeled "n" spans from approximately 0:55 to 1:55.
- Tenor (T):** Treble clef, *mf* dynamic. A bracket labeled "e" spans from approximately 0:05 to 1:05.
- Bass (B):** Bass clef, *mf* dynamic. A bracket labeled "g" spans from approximately 0:55 to 1:55.

Example 16b. First Four Time Brackets of *Four*²: Prevalence of Notes in the First Time Bracket for Each Part in Random Simulations



Example 17. Flowchart of Likely Harmonic Progression from 0'00" to 1'30"



Example 18. Progressions from sc (04) to sc (037) to sc (03) (Varia)

A musical score for four voices: Soprano (S), Alto (A), Tenor (T), and Bass (B). The score is divided into time segments by vertical dashed lines at 0'00", 1'00", 2'00", 3'00", 4'00", 5'00", 6'00", and 7'00". Above the staves, colored boxes indicate harmonic progressions: green for sc (04), red for sc (037), and blue for sc (03). The Soprano part has lyrics: "e", "n", "g", "g". The Alto part has lyrics: "n", "o", "o", "g". The Tenor part has lyrics: "e", "o", "n", "o", "r". The Bass part has lyrics: "g", "e", "r", "e", "g", "o". Dynamics are indicated by *p*, *mf*, *mp*, and *f*. Chord boxes are present: 'd minor' (0'00"-1'00"), 'C major' (3'00"-4'00"), and 'A major' (4'00"-5'00").

Example 19. Expanded Intervallic Progression About Each Triad (Varia)

Example 19 is a musical score for four parts: Soprano (S), Alto (A), Tenor (T), and Bass (B). The score is divided into seven measures, each 1 minute long, from 0:00 to 7:00. The vocal parts (S, A, T, B) are written in treble clef, while the Bass part is in bass clef. The score includes various intervallic progressions (sc) and dynamic markings (p, mp, mf, f). Key features include:

- Measure 1 (0:00-1:00):** Soprano starts on "e" (p), Alto on "n" (mf), Tenor on "e" (mf), and Bass on "g" (mf). Intervallic progressions are sc(04) (green), sc(037) (red), and sc(03) (blue).
- Measure 2 (1:00-2:00):** Soprano on "g" (mp), Alto on "o" (mp), Tenor on "o" (mf), and Bass on "e" (mp). Intervallic progressions are sc(02) (yellow) and sc(03) (blue). Chords C major and d minor are indicated.
- Measure 3 (2:00-3:00):** Soprano on "g" (mp), Alto on "o" (mp), Tenor on "n" (f), and Bass on "r" (p). Intervallic progressions are sc(04) (green), sc(037) (red), and sc(03) (blue).
- Measure 4 (3:00-4:00):** Soprano on "g" (mp), Alto on "o" (mp), Tenor on "o" (mp), and Bass on "e" (f). Intervallic progressions are sc(04) (green), sc(037) (red), and sc(03) (blue). Chords A major and d minor are indicated.
- Measure 5 (4:00-5:00):** Soprano on "g" (mp), Alto on "g" (mp), Tenor on "o" (mp), and Bass on "g" (p). Intervallic progressions are sc(04) (green), sc(037) (red), and sc(03) (blue).
- Measure 6 (5:00-6:00):** Soprano on "g" (mp), Alto on "g" (mp), Tenor on "o" (mp), and Bass on "o" (p). Intervallic progressions are sc(04) (green), sc(037) (red), and sc(03) (blue).
- Measure 7 (6:00-7:00):** Soprano on "g" (mp), Alto on "g" (mp), Tenor on "o" (mp), and Bass on "o" (p). Intervallic progressions are sc(01) (purple) and sc(02) (yellow).

Example 20. I₆-related Trichords (Varia)

Example 20 is a musical score for four parts: Soprano (S), Alto (A), Tenor (T), and Bass (B). The score is divided into seven measures, each 1 minute long, from 0:00 to 7:00. The vocal parts (S, A, T, B) are written in treble clef, while the Bass part is in bass clef. The score focuses on I₆-related trichords and intervallic progressions (sc). Key features include:

- Measure 1 (0:00-1:00):** Soprano starts on "e" (mf), Alto on "n" (p), Tenor on "e" (mf), and Bass on "g" (mf). Intervallic progression is sc(037) (red).
- Measure 2 (1:00-2:00):** Soprano on "g" (mf), Alto on "o" (mp), Tenor on "o" (mf), and Bass on "e" (mp). Intervallic progression is sc(037) (red).
- Measure 3 (2:00-3:00):** Soprano on "g" (mf), Alto on "o" (mp), Tenor on "n" (p), and Bass on "r" (p). Intervallic progression is sc(037) (red).
- Measure 4 (3:00-4:00):** Soprano on "g" (mf), Alto on "o" (mp), Tenor on "o" (mp), and Bass on "e" (f). Intervallic progression is sc(037) (red).
- Measure 5 (4:00-5:00):** Soprano on "g" (f), Alto on "g" (p), Tenor on "o" (mp), and Bass on "g" (p). Intervallic progression is sc(037) (red).
- Measure 6 (5:00-6:00):** Soprano on "g" (f), Alto on "g" (mp), Tenor on "o" (mp), and Bass on "o" (p). Intervallic progression is sc(014) (blue).
- Measure 7 (6:00-7:00):** Soprano on "g" (f), Alto on "g" (mp), Tenor on "o" (mp), and Bass on "o" (p). Intervallic progression is sc(014) (blue).

Example 21. Metera's Interpretation of *Four*²

Example 21 is a musical score for four vocal parts: Soprano (S), Alto (A), Tenor (T), and Bass (B). The score is divided into seven time intervals from 0'00" to 7'00".

- Soprano (S):** Dynamics include *mf* (0'00"-1'00", 2'00"-3'00"), *f* (5'00"-7'00"). Phonetics: "e" (1'00"-1'30"), "g" (2'00"-2'30"), "g" (5'00"-5'30").
- Alto (A):** Dynamics include *p* (0'00"-1'00", 4'00"-5'00"), *mp* (2'00"-3'00", 6'00"-7'00"). Phonetics: "n" (0'00"-1'00"), "o" (2'00"-3'00"), "o" (4'00"-5'00"), "g" (6'00"-7'00").
- Tenor (T):** Dynamics include *mf* (0'00"-1'00", 2'00"-3'00"), *f* (3'00"-4'00"), *mp* (4'00"-5'00", 6'00"-7'00"). Phonetics: "e" (0'00"-1'00"), "o" (2'00"-3'00"), "n" (3'00"-4'00"), "o" (4'00"-5'00"), "o" (5'00"-6'00"), "r" (6'00"-7'00").
- Bass (B):** Dynamics include *mf* (0'00"-1'00", 2'00"-3'00"), *mp* (2'00"-3'00"), *p* (3'00"-4'00"), *f* (4'00"-5'00"), *p* (5'00"-6'00"), *p* (6'00"-7'00"). Phonetics: "g" (0'00"-1'00"), "e" (2'00"-3'00"), "r" (3'00"-4'00"), "e" (4'00"-5'00"), "g" (5'00"-6'00"), "o" (6'00"-7'00").

Example 22. Registral Order of First and Last Four Sounds (Metera)

Example 22 is a musical score for four vocal parts: Soprano (S), Alto (A), Tenor (T), and Bass (B). The score is divided into seven time intervals from 0'00" to 7'00".

- Soprano (S):** Dynamics include *mf* (0'00"-1'00", 2'00"-3'00"), *f* (5'00"-7'00"). Phonetics: "e" (1'00"-1'30"), "g" (2'00"-2'30"), "g" (5'00"-5'30").
- Alto (A):** Dynamics include *p* (0'00"-1'00", 4'00"-5'00"), *mp* (2'00"-3'00", 6'00"-7'00"). Phonetics: "n" (0'00"-1'00"), "o" (2'00"-3'00"), "o" (4'00"-5'00"), "g" (6'00"-7'00").
- Tenor (T):** Dynamics include *mf* (0'00"-1'00", 2'00"-3'00"), *f* (3'00"-4'00"), *mp* (4'00"-5'00", 6'00"-7'00"). Phonetics: "e" (0'00"-1'00"), "o" (2'00"-3'00"), "n" (3'00"-4'00"), "o" (4'00"-5'00"), "o" (5'00"-6'00"), "r" (6'00"-7'00").
- Bass (B):** Dynamics include *mf* (0'00"-1'00", 2'00"-3'00"), *mp* (2'00"-3'00"), *p* (3'00"-4'00"), *f* (4'00"-5'00"), *p* (5'00"-6'00"), *p* (6'00"-7'00"). Phonetics: "g" (0'00"-1'00"), "e" (2'00"-3'00"), "r" (3'00"-4'00"), "e" (4'00"-5'00"), "g" (5'00"-6'00"), "o" (6'00"-7'00").

Numbered boxes and arrows indicate the registral order of sounds:

- Box 1:** Soprano part at 5'00" (sound "g").
- Box 2:** Alto part at 0'00" (sound "n") and 6'00" (sound "g").
- Box 3:** Tenor part at 0'00" (sound "e") and Bass part at 6'00" (sound "o").
- Box 4:** Bass part at 0'00" (sound "g") and Tenor part at 5'00" (sound "o").

Arrows show the following connections:

- Green arrow: Box 1 (Soprano "g") to Box 4 (Tenor "o").
- Red arrow: Box 2 (Alto "n") to Box 4 (Tenor "o").
- Blue arrow: Box 2 (Alto "g") to Box 3 (Tenor "e").
- Red arrow: Box 3 (Tenor "e") to Box 4 (Tenor "o").

Example 23. Near-Triads and Arpeggiations (Metera)

Example 23 is a musical score for four vocal parts: Soprano (S), Alto (A), Tenor (T), and Bass (B). The score is divided into measures from 0'00" to 7'00". The lyrics are: S: "e" "g"; A: "n" "o" "g"; T: "e" "o" "n" "o" "o" "# "r"; B: "g" "e" "r" "e" "g" "o".

Annotations include:

- C major ascending** (blue box) pointing to the "g" in the Soprano part at 2'00".
- F major (near-triad)** (green box) pointing to the "o" in the Tenor part at 1'30".
- d minor (near-triad) descending** (red box) pointing to the "n" and "o" in the Tenor part at 3'00".

Example 24. Quasi-Cadential Figure (Metera)

Example 24 is a musical score for four vocal parts: Soprano (S), Alto (A), Tenor (T), and Bass (B). The score is divided into measures from 0'00" to 7'00". The lyrics are: S: "e" "g"; A: "n" "o" "g"; T: "e" "o" "n" "o" "o" "# "r"; B: "g" "e" "r" "e" "g" "o".

Annotations include:

- A major (enharmonic)** (yellow box) pointing to the "e" in the Bass part at 4'00".
- E → F, Db (C#) → D** (red box) pointing to the "o" in the Alto part at 5'00".

Example 25. Transcription of Houston Chamber Choir (ECM New Series)

0'00" 1'00" 2'00" 3'00" 4'00" 5'00" 6'00" 7'00"

S *mf* *mf* *f*
"e" "g" "g"

A *p* *mp* *p* *mp*
"n" "o" "o" "g"

T *mf* *mf* *f* *mp* *mp* *mp*
"e" "o" "n" "o" "o" "r"

B *mf* *mp* *p* *f* *p* *p*
"g" "e" "r" "e" "g" "o"

Example 26. Transcription of Ars Nova Copenhagen, Version 1 (Mode)

0'00" 1'00" 2'00" 3'00" 4'00" 5'00" 6'00" 7'00"

S *mf* *mf* *f*
"e" "g" "g"

A *p* *mp* *p* *mp*
"n" "o" "o" "g"

T *mf* *mf* *f* *mp* *mp* *mp*
"e" "o" "n" "o" "o" "r"

B *mf* *mp* *p* *f* *p* *p*
"g" "e" "r" "e" "g" "o"

Example 27. Transcription of Ars Nova Copenhagen, Version 2 (Mode)

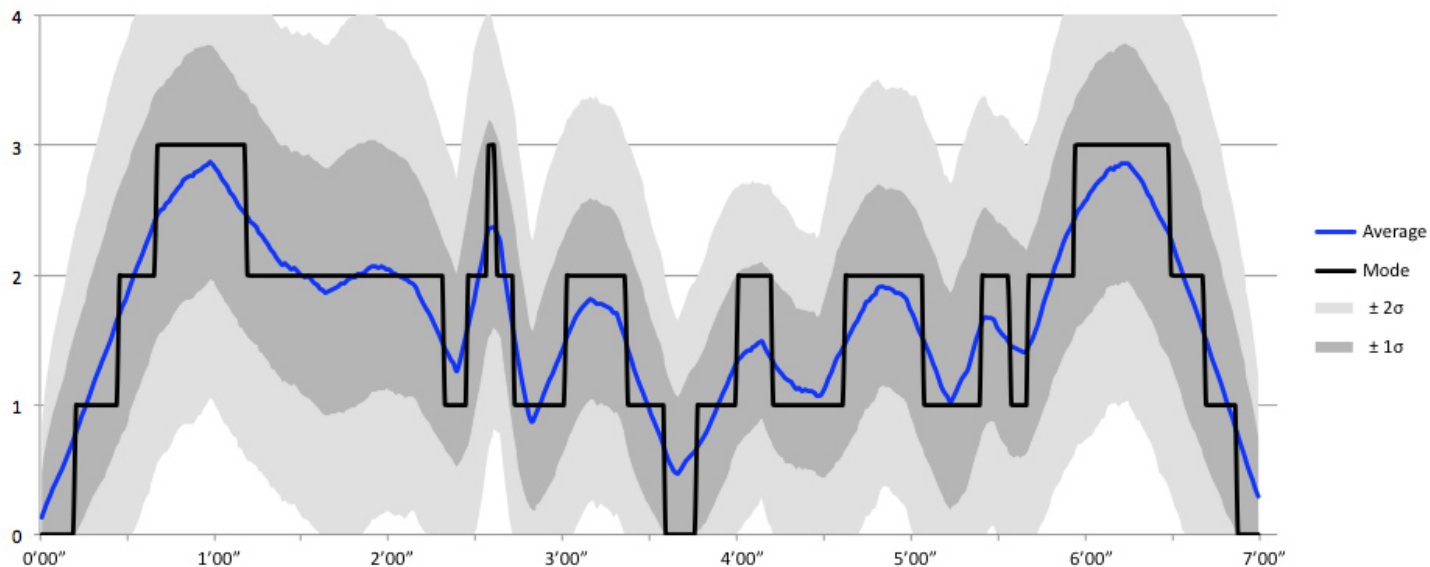
The musical score is divided into four staves: Soprano (S), Alto (A), Tenor (T), and Bass (B). The time axis at the top is marked from 0'00" to 7'00" in one-minute increments. Dynamic markings are placed above or below the staves. Lyrics are written below the notes. Thick black bars indicate periods of silence for each voice part.

Voice Part	Approximate Silence Intervals
Soprano (S)	0'00" - 1'00", 2'00" - 3'00", 5'00" - 7'00"
Alto (A)	0'00" - 1'00", 2'00" - 2'30", 3'00" - 3'30", 4'00" - 4'30", 5'00" - 5'30", 6'00" - 6'30"
Tenor (T)	0'00" - 0'30", 1'00" - 1'30", 2'00" - 2'30", 3'00" - 3'30", 4'00" - 4'30", 5'00" - 5'30", 6'00" - 6'30"
Bass (B)	0'00" - 0'30", 1'00" - 1'30", 2'00" - 2'30", 3'00" - 3'30", 4'00" - 4'30", 5'00" - 5'30", 6'00" - 6'30"

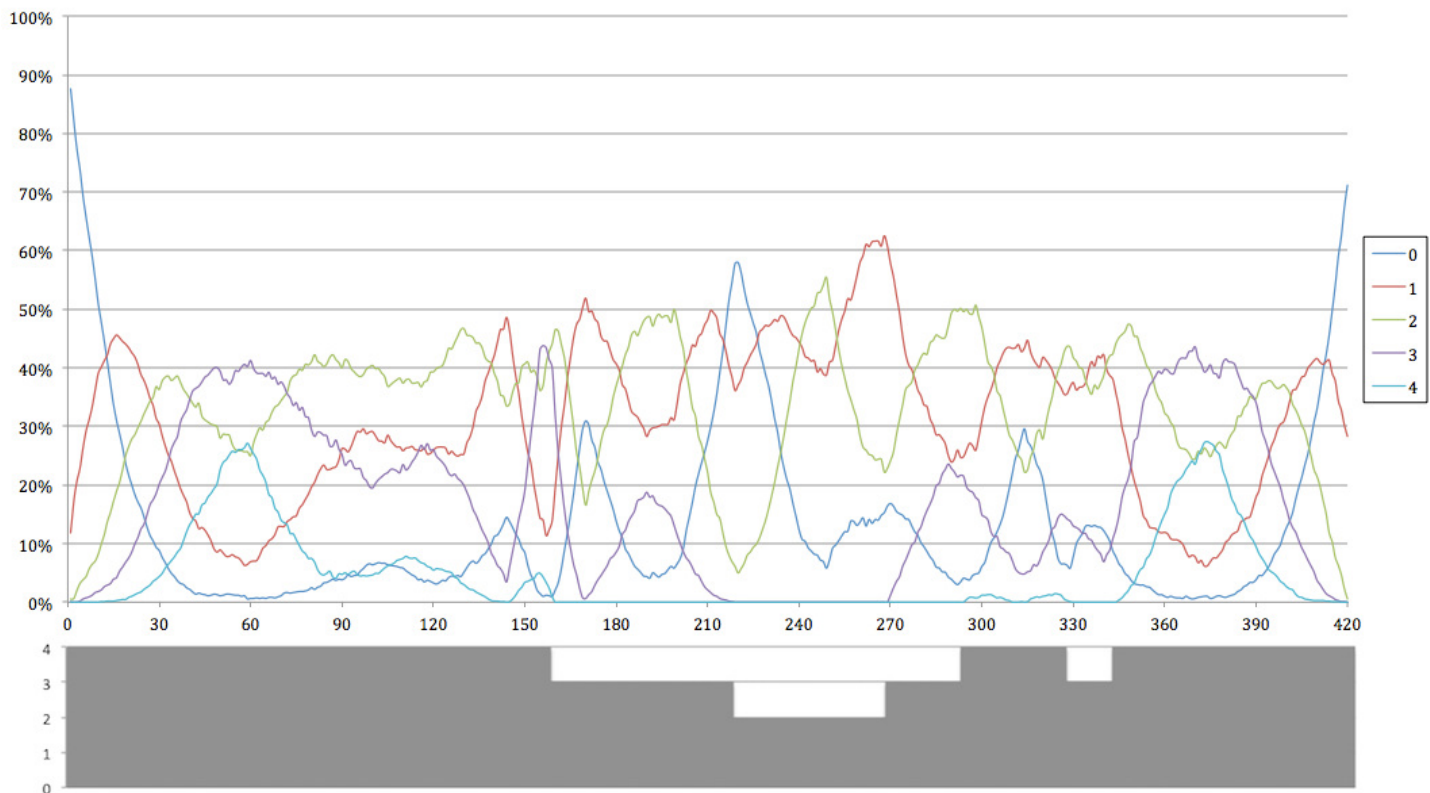
Example 28. Comparison of Distribution of Densities (by Number of Vocal Parts) in the Monte Carlo Simulations, Fictional Conductors' Interpretations, and Selected Recordings of *Four*²

Source	Silence	1 Voice	2 Voices	3 Voices	4 Voices
Simulation Average	0'57" (13.6%)	2'11" (31.2%)	2'20" (33.4%)	1'12" (17.1%)	0'20" (4.7%)
Most in a Single Sim.	2'30" (35.7%)	4'16" (61.0%)	4'08" (59.0%)	3'08" (44.8%)	1'26" (20.5%)
Least in a Single Sim.	0'01" (0.2%)	1'00" (14.3%)	0'51" (12.1%)	0'06" (1.4%)	0'00" (0%)
Acuta	2'19" (33.1%)	3'37" (51.7%)	0'32" (7.6%)	0'24" (5.7%)	0'08" (1.9%)
Metera	0'28" (6.7%)	2'15" (32.1%)	2'41" (38.3%)	1'05" (15.4%)	0'31" (7.4%)
Soportia	0'00" (0'00")	1'52" (26.7%)	2'35" (36.9%)	1'28" (21.0%)	1'05" (15.5%)
Varia	0'25" (6.0%)	2'02" (29.0%)	2'46" (39.5%)	1'14" (17.6%)	0'33" (7.9%)
Houston Ch. Choir	0'37" (8.8%)	0'56" (13.3%)	3'14" (46.2%)	1'34" (22.4%)	0'39" (9.3%)
Ars Nova (Ver. 1)	0'19" (4.5%)	0'36" (8.6%)	1'54" (27.1%)	3'02" (43.3%)	1'09" (16.4%)
Ars Nova (Ver. 2)	0'13" (3.1%)	0'33" (7.9%)	2'16" (32.4%)	3'25" (48.8%)	0'33" (7.9%)

Example 30. Average Density of Voices in Simulations of $Four^2$ Over Time

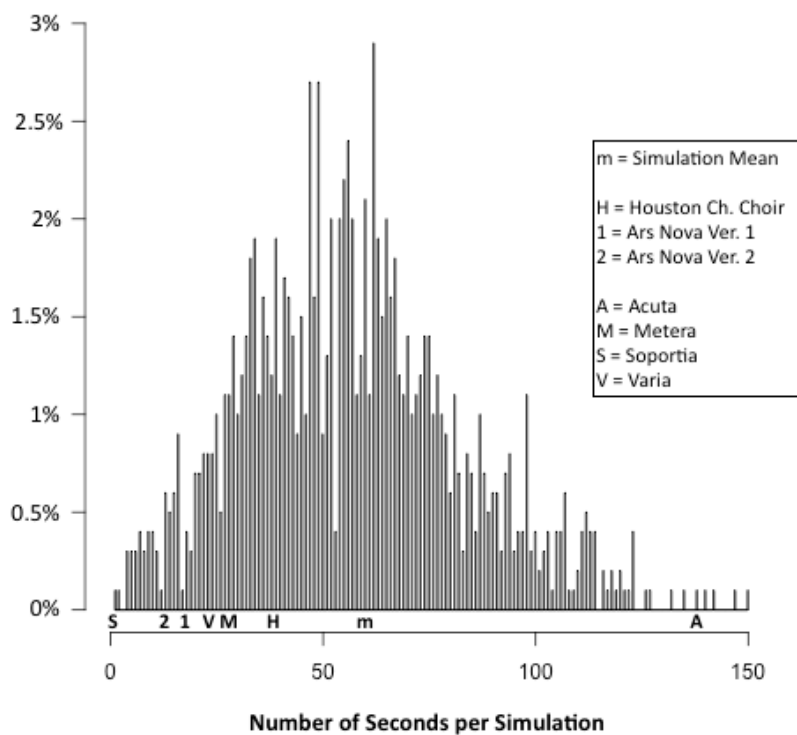


Example 31. Prevalence of Density of Voices Over Time in All Simulations

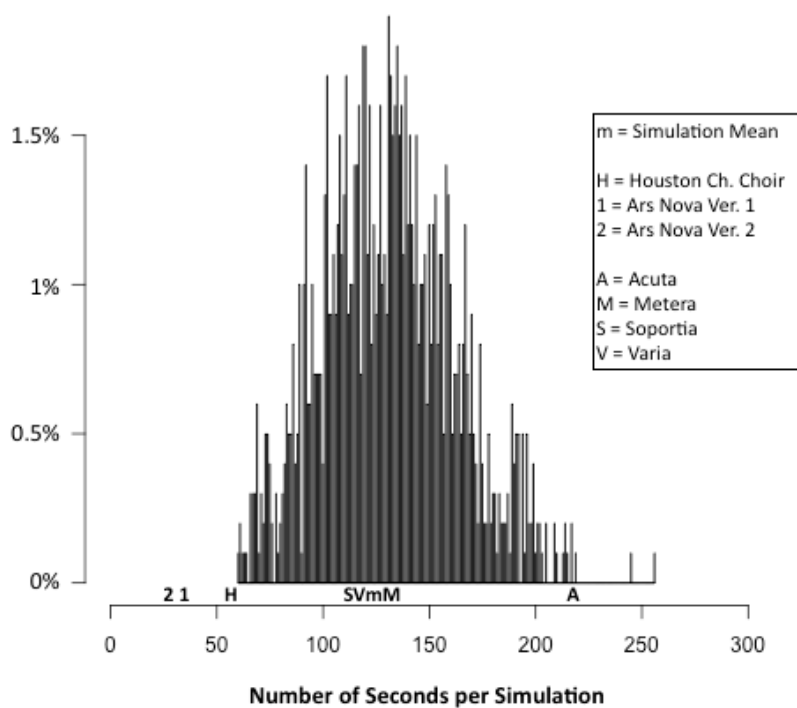


Example 32. Histograms of the Prevalence of Cardinalities in Simulations, with Recordings and Fictional Conductors' Interpretations Superimposed

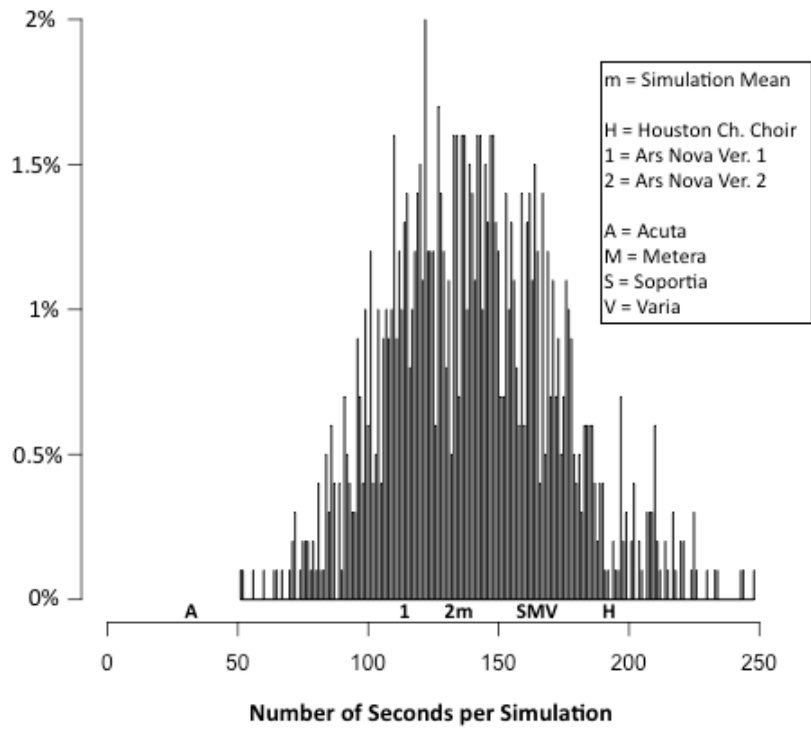
a. Zero-Voice (Silent) Textures



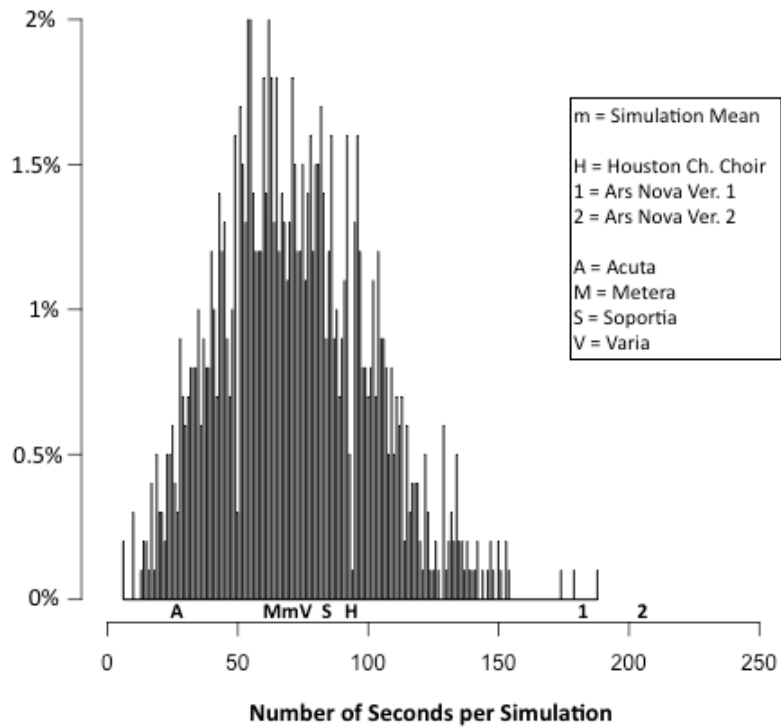
b. One-Voice Textures



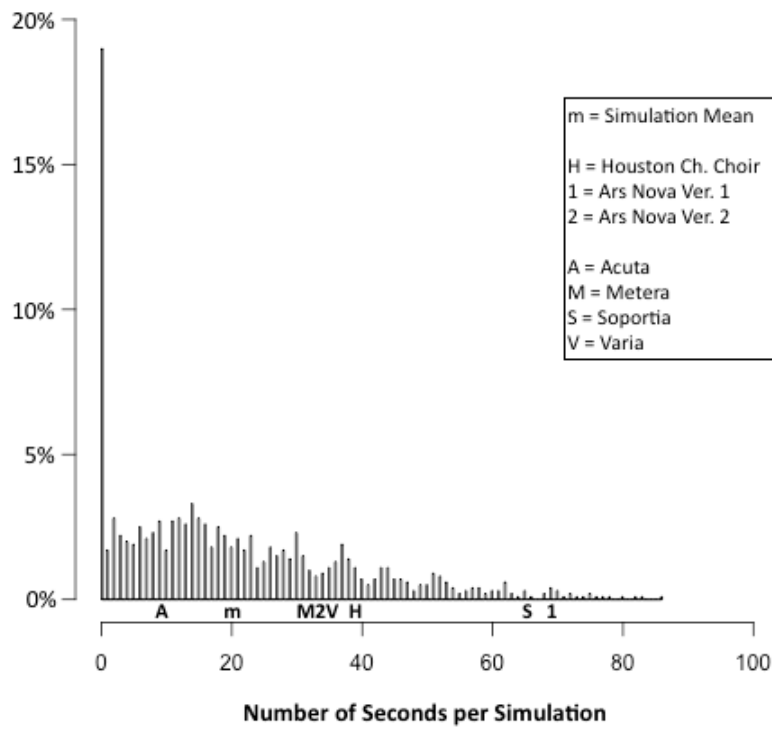
c. Two-Voice Textures



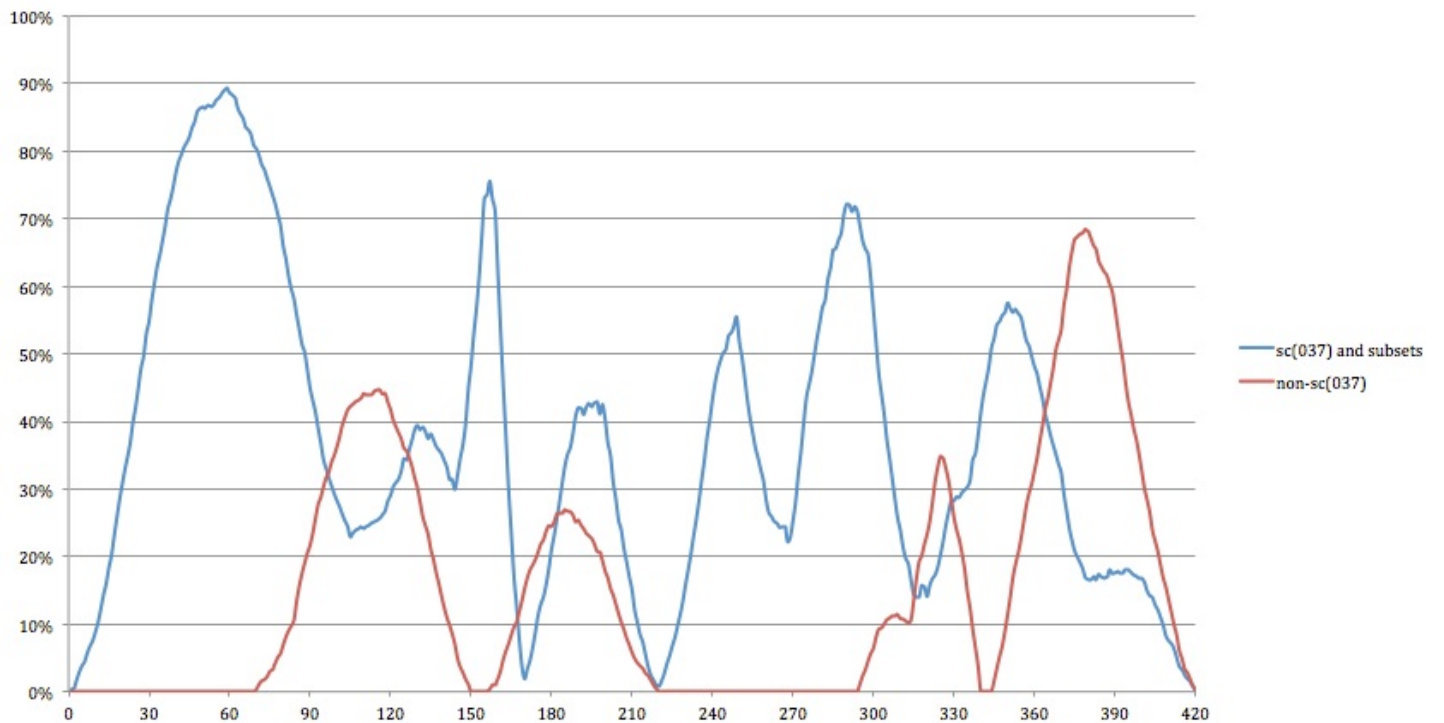
d. Three-Voice Textures



e. Four-Voice Textures



Example 33. Prevalence of (037)-Related Sets and Non-(037)-Related Sets in the Simulations Over Time



Example 34. Soportia's Interpretive Response to Dissonant Moments

Example 34 is a musical score for four vocal parts: Soprano (S), Alto (A), Tenor (T), and Bass (B). The score spans from 0'00" to 7'00". The lyrics are: S: "e", "g"; A: "n", "o"; T: "e", "o", "n", "o"; B: "g", "e", "r", "e", "g", "o".

Dynamic markings are as follows: S (mf, mf, f); A (p, mp, p, mp); T (mf, mf, f, mp, mp); B (mf, mp, p, f, p, p). Four dissonant moments are highlighted: Dissonant Moment #1 (red, 1'00"-2'00"), Dissonant Moment #2 (yellow, 2'00"-3'00"), Dissonant Moment #3 (blue, 5'00"-6'00"), and Dissonant Moment #4 (green, 6'00"-7'00").

Example 35. Acuta's Interpretive Response to Dissonant Moments

(e)

Example 35 is a musical score for four vocal parts: Soprano (S), Alto (A), Tenor (T), and Bass (B). The score spans from 0'00" to 7'00". The lyrics are: S: "e", "g"; A: "n", "o"; T: "e", "o", "n", "o"; B: "g", "e", "r", "e", "g", "o".

Dynamic markings are as follows: S (mf, mf, f); A (p, mp, p, mp); T (mf, mf, f, mp, mp); B (mf, mp, p, f, p, p). Four dissonant moments are highlighted: Dissonant Moment #1 (red, 1'00"-2'00"), Dissonant Moment #2 (yellow, 2'00"-3'00"), Dissonant Moment #3 (blue, 5'00"-6'00"), and Dissonant Moment #4 (green, 6'00"-7'00").