

Aspects of Rhythm and Meter

Music 254

Regularity vs Irregularity

▶ Meter

- ▶ Ordinary meters as notated
- ▶ Ordinary meters as sounded/heard
- ▶ Unmeasured music
- ▶ Polymeter; hypermeter

▶ Accent

- ▶ Prosody approach
- ▶ Tonal inflectional

▶ Hierarchical aspects of rhythm

- ▶ Melodic contributions
- ▶ Harmonic contributions

Meter and Accent

Meter and Prolation

Conventional meters today

	Simple (subdivision = 2)	Compound (subdivision = 3)
Duple Meters	2 2	6 4
	2 4	6 8
	2 8	6 16
Triple Meters	3 2	9 4
	3 4	9 8
	3 8	9 16
Quadruple Meters	4 2	12 4
	4 4	12 8
	4 8	12 16

16th Century Note Durations

	Maxima	
	Longa	
	Breve	= Double whole note
	Semibreve	= Whole note
	Minim	= Half note
	Seminim	= Quarter note
	Fusa	= Eighth note
	Semifusa	= Sixteenth note

Metrical ambiguity

Regular meter; syncopation; missing downbeat; hemiola

Common presentations

- Marches
- Jazz
- Dance rhythms
- 16th-century music



West Side Story (Bernstein)

"Maria" from West Side Story

Accent (music with lyrics)

Prosody models

Simple Duple:



Simple Triple:



Simple Quadruple:



▲ =primary accent ◡ =secondary accent

TONES & WORD ACCENTS

LEVEL		CONTOUR			
ẽ	or ㄗ	Extra high	ẽ or ㄗ	Rising	
é	┘	High	ê	∨	Falling
ē	┘	Mid	ẽ	┘	High rising
è	┘	Low	ẽ	┘	Low rising
ě	┘	Extra low	ẽ	┘	Rising-falling etc.
↓	Downstep		↗	Global rise	
↑	Upstep		↘	Global fall	

Irregularity, varying meters

A musical score for piano, consisting of two staves (treble and bass clef) with a blue brace on the left. The score is divided into four measures by vertical bar lines. The first measure is in 5/4 time, the second in 6/4, the third in 5/4, and the fourth in 6/4. The treble staff contains a melodic line with eighth and sixteenth notes. The bass staff contains a bass line with eighth and sixteenth notes, including some rests in the first two measures.

A single staff of music in 4/4 time, featuring a melodic line with eighth and sixteenth notes. The piece includes three triplet markings, each consisting of a '3' above a group of three notes.

Unmeasured music

Columba Aspexit (Sequentia de sancto Maximo)--1st stanza
by Hildegard von Bingen (1098-1179)
published by Hildegard Publishing Co.

Co - lum - ba as - pex - it per can - cel - los fe - nes - tre
u - bi an - te fa - ci - em e - ius su - dan - do su - dan bal -
sa - mum de lu - ci - do Ma - xi -

(Auftakt?)

Suspended meter

14

cresc. *p subito* *p* *sf* *senza fretta* *sempre piano*
f *f* *f* *mp legato ed espress.*

Approaches to Rhythmic Analysis

Metric pattern modules

Continuous information

- Durational change “intervals”
- Accentual values/weights



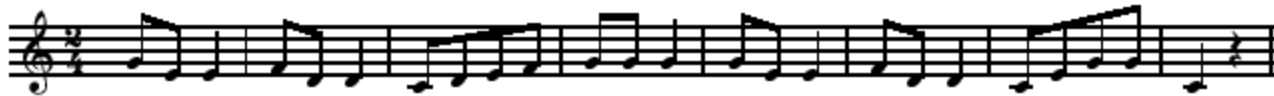
- (a) | 2 3 4 5 6 7 8 9 10
 (b) | | 2- 2 0 | - | - | 4-
 (c) | 4 | 4 | 2 3 4 | 3
 (d) + - + - + - + - +

- Hauptmann (1853)
- Zarhipov (1965)
- Leppig (1987)

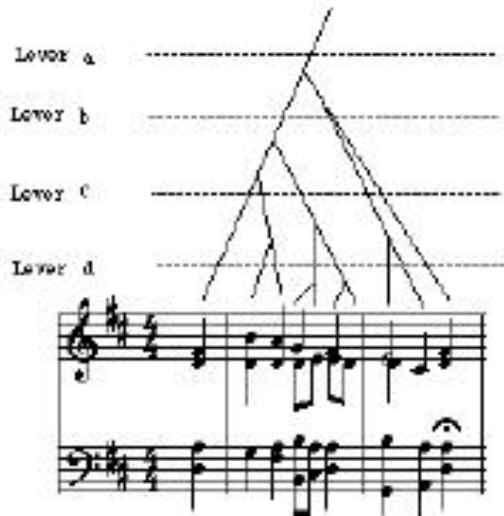
Rhythmic patterns in blues

Group No.	Metric Position (First Note-Last Note)			
	Strong-Strong	Strong-Anticipated	Anticipated-Strong	Anticipated-Anticipated
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				

Accentual values, weights



Harmonic Structure	T	T	D	D	T	T	D	D	T	T	D	D	T	D	T
Motif Structure	a		a'		b		c		a		a'		b'		c'
Phrase Structure	A				B				A				B'		



- **Lerdahl/Jackendoff (GTTM)**
- **Temperley**
- **Camberoupolous**
- Singer
- **Volk**
- **Narmour**
- **Jones**

Pitch accents

“Melodic” vs. “rhythmic” accent

- ▶ First, last pitches in phrase
- ▶ Highest, lowest pitches in phrase
- ▶ Various combinations of these in judgments of melodic similarity

The image displays a musical score in two systems. The first system shows a melodic line in the treble clef, starting at measure 5 and ending at measure 6. A bracket labeled 'motive' spans the first four measures, and a bracket labeled 'sequence' spans the last four measures. The second system shows a continuation of the melodic line, starting at measure 7 and ending at measure 8, with a bracket labeled 'Subj. 2' underneath. The score is written in a key signature of two flats and a common time signature.

Jones and Pfordresher (2003)

Harmonic rhythm

Work of Joseph Swain

1. Activity levels

Ex. 4-1. Corelli, Concerto op. 6, no. 8, III, mm. 9-14.

Allegro

Tex.
Phen.
Bass pitch

Tex.
Phen.
Bass

These are the famous three...

2. Rhythm of Harmonic Change

Allegretto

A: I V I
Harmonic rhythm

3. Root rhythm

Ex. 5-3. J. S. Bach, Prelude in A from *The Well-Tempered Clavier*, vol. 2, mm. 1-6.

Root

A E A E A b A c# f# E f# g#

A E

Root

A g# A g# A g# A b D A D b c# b g# D g# c# E A f# c#

A D b g# A

Harmonic rhythm (2)

▶ 4. Density

Ex. 6-1. Debussy, Prelude no. 1, book 1, "Danseuses de Delphes," mm. 1-10.

Lent et grave (♩ = 44)
doux et soutenu

The image displays a musical score for the first ten measures of Debussy's 'Danseuses de Delphes'. The score is in 3/4 time, marked 'Lent et grave' with a tempo of ♩ = 44, and the instruction 'doux et soutenu'. The music is in B-flat major. The upper staff shows the piano part with a dynamic marking of *p*. The lower staff shows the harmonic rhythm analysis, with 'Root' notes and a 'Density' line. The root notes are B♭, a-, F+, B♭, a-, F+, B♭, b-, and c. The density line shows a single note in the first measure, followed by a bar with no notes, and then a bar with a note in the final measure.

Root
B♭ a- F+ B♭ a- F+ B♭ b- c

Density

Harmonic rhythm (3)

5a. Density + Function

Ex. 7-5. Vivaldi, Concerto op. 8, no. 4, "Winter," I, mm. 1-12.

Allegro non molto

Root: f | e- | | |

Density: | | | |

Function: f: I | V | | |

f: I | | | |

5

Root: e- | f | b b | F |

Density: | | | |

Function: | | | b^b: V | c: [IV] |

f: V | I | IV |

f: I | | | |

Harmonic rhythm (4)

6. Final tiered view

Ex. 9-1. J. S. Bach, A Major Prelude from *The Well-Tempered Clavier*, vol. 2, mm. 1-6.

The image shows a musical score for the first six measures of J.S. Bach's A Major Prelude. The score is presented in a tiered view, showing the original notation and several analytical layers. The key signature is A major (three sharps) and the time signature is 12/8. The analytical layers are as follows:

- Texture Phenomenal:** A series of eighth notes in the bass clef, corresponding to the bass line of the original score.
- Bass pitch:** A series of eighth notes in the bass clef, corresponding to the bass line of the original score.
- Root:** A series of eighth notes in the bass clef, corresponding to the bass line of the original score. The notes are labeled with their corresponding chord roots: A, E, A, E, A, b, A, c, #f#, E, f#, g#.
- Density:** A series of eighth notes in the bass clef, corresponding to the bass line of the original score. The notes are labeled with their corresponding chord roots: A, E.
- Function:** A series of eighth notes in the bass clef, corresponding to the bass line of the original score. The notes are labeled with their corresponding chord functions: A: I, V, I, V, I, V, I, IV, V, IV, V.

Inner and outer metric structure

Work of Anja Fleisher Volk

- *Main premise*: coincidence of “inner” and “outer” metric structures renders strongest accents
- *Main repertoires*:
 - Madrigals
 - Renaissance sacred vocal music
 - Renaissance dances
 - Bach keyboard music (WTC)
 - Brahms, Stravinsky
 - Ragtime
- Working method:
 - Differentiation of
 - *Metric* weight
 - *Spectral* weight
 - Evaluations proceed *voice by voice*
- Unusual constructs:
 - *Metrical dissonance*
- Unusual uses:
 - *Genre classification*