

MTSMA 2013 Abstracts

Friday

12:30-1:30 Short Paper Session

I: Chorale (Bach)

How Melody Engenders Cadence in the Chorales of J. S. Bach: A Corpus Study
Trevor de Clercq, Ithaca College

Abstract: This paper reports a corpus study of the 371 chorales harmonized by J. S. Bach. The focus of this study is to investigate what kinds of events are typical at phrase endings (as demarcated by fermatas) given various melodic conditions, i.e., how well melodic structure is a predictor of cadence choice. Although cadence choices in the Bach chorales may seem well understood, existing literature evinces various inconsistencies when compared with the statistical evidence. After an explanation of the research methodology, the paper addresses some analytical issues in cataloging cadence types (e.g., modality vs. tonality, tonicization vs. modulation). The results are then discussed, with an emphasis on their pedagogical application. It is shown that most fermata events can be categorized by a relatively small collection of event types. As a result, simplified conceptual models of cadence choices are presented for both major and minor keys. These models are then tested given the soprano scale degree at the fermata and its preceding melodic interval. The efficacy of these models is found to be very good, especially under certain conditions. Moreover, only a few extensions to the models are required to achieve an overall success rate well above 90%. The implications of these findings are discussed in terms of projects both inside and outside of the classroom.

There are 13 (and also 3) Functions in the Bach Chorales
Christopher White and Ian Quinn, Yale University

Abstract: Three-function theory pervades contemporary music theory and is generally accepted in our discourse. The model certainly captures something basic about the way tonal music works, and in that sense three-function theory is completely unassailable. However, several assumptions tend to underlie three-function theory, and this paper identifies and interrogates several of them. First, we often analyze all passing chords with the same “passing” function, suggesting that all such chords act similarly. Second, we assume that non-tertian sonorities function on a less fundamental level than do triads and seventh chords. Third, we often assume that the tonic, predominant, and dominant functions are homogeneous categories, indicating that there is no significant variation within these functions. Finally, applied chords tend to have an overdetermined relationship to surrounding diatonic chords within functional analysis, as they ambiguously function both as brief modulations and as chromatic alterations of diatonic chords. We interrogate these assumptions with a corpus analysis of the Bach chorales, identifying potential functional categories using an algorithm (a “Hidden Markov Model”) designed to find contextual regularities within streams of data. Our analysis suggests that not only does a three-function model make sense of this corpus, but so too do models with higher numbers of functions.

These models call into question some aspects of each of the above assumptions, and in the end, we argue for a definition of function that is not fixed to a particular number of functions, but allows for shifts in quantity depending on the corpus involved and the desired precision of the analysis. We finally point to various potential connections with traditional three-function analysis and describe the subtle relationship between function and the I, IV, and V triads.

II. Chorus (Rock)

Rhythmic and Timbral Associations in Suffjan Stevens's "Come On, Feel the Illinoise!"
Megan Lavengood, CUNY Graduate Center

Abstract: The music of indie pop artist Suffjan Stevens is quickly recognizable through his use of lush textures created by using both electric instruments and acoustic orchestral instruments in Reichian counterpoint with one another, as well as his preference for asymmetrical meters. "Come On, Feel the Illinoise!", from the album by the same name, is a representative example of Stevens's output. The song is rather static harmonically, relying on the repetition of either a single chord or a four-chord pattern. Thus, more traditional harmony-based analytical techniques are not of interest when examining this music. Instead, Dora Hanninen's associative sets and landscapes are a tool that elegantly relates the more salient elements of timbre and rhythm that lend this song its complexity.

Prominent associative sets are defined primarily based on rhythmic associations, and relationships are drawn between them regarding their timbre, i.e., the instrument being played. After this process, the resultant sets are arranged into an associative landscape, which shows the organization of the sets in the temporal dimension. This demonstrates several things: firstly, the music is clearly divided into two largely unrelated sections; secondly, the first section conforms to verse-chorus design, while the second section is formally elusive; thirdly, the deployment of segments within a single subset varies depending on timbre, since the voice has different segments presented horizontally (through time), while the instrumental parts present segments vertically (between instruments). These facets are elucidated through the use of associative sets in a way that other methodologies may not capture.

The Chorus as Telos in Rock Songs With Prechorus
Drew Nobile, CUNY Graduate Center

Abstract: This presentation will demonstrate the fundamental difference between rock songs that contain a prechorus and those that do not. Most authors who write about form in rock music (Stephenson 2002, Covach 2005, Everett 2009) toss off the prechorus as an optional add-on between the verse and chorus sections—that is, if they mention the prechorus at all. (An exception is Summach 2011, who attempts to trace the process by which the prechorus came into existence in the mid-1960s.) I will demonstrate, however, that the presence of a prechorus is an important form-defining feature of a rock song, one that affects the structure of the verse and chorus sections that surround it.

The difference between the two song types is teleological: in verse-chorus songs without a prechorus, the structural goal comes at the end of the chorus, usually in the form of a cadence. However, in songs that do include a prechorus—and therefore follow a verse-prechorus-chorus form—the structural goal is in fact the *beginning* of the chorus. In these songs, the chorus acts as a telos theme (Hepokoski 1993); the entire section, rather than a single moment, acts as the goal of the song. The verse and prechorus generate a sense of anticipation in the listener, and the moment of synthesis at the onset of the chorus extends to encompass the entire section, prolonging the climax and encouraging a significant amount of "rocking out" on the part of the listeners.

2:00-4:00 Long Paper Session: In Memoriam Steven Strunk I

Jazz Harmony, Transformations, and ii-V Space
Michael Mcclimon, Indiana University

Abstract: Studies of jazz harmony in recent years have primarily taken the form of Schenkerian analyses that seek to uncover large-scale voice-leading structures to define tonality. While I am certainly not opposed to Schenkerian analysis, using it as the only tool for jazz harmonic analysis misses some important aspects of the music at hand. This paper presents a transformational model that, while not totally devoid of voice-leading considerations, shifts attention back to harmony as a primary way of understanding jazz. While on the surface a transformational model may seem just as abstract as Schenkerian analysis, jazz harmony fits in quite well with David Lewin's famous "transformational attitude." Jazz musicians typically do not refer to a piece's harmonic structure as "the chords" (a set of points) but rather as "the changes" (a set of "characteristic gestures" between them).

The most common harmonic progression in jazz is undoubtedly the $ii7-V7-I7$ progression, and jazz musicians often describe tunes in terms of their constituent $ii-Vs$. While some theorists are quick to dismiss this kind of description, in this paper I take the way jazz musicians actually think about this music as a starting point for developing a more rigorous transformational approach to jazz harmony. This paper begins by outlining the basics of what I call "ii-V space," compares this space with other approaches to jazz harmony, and finally presents short analyses of compositions by Lee Morgan, Charlie Parker, and Thelonious Monk to illustrate how this space may be helpful for jazz analysis.

Chord-Scale Networks in the Music of Wayne Shorter
Garrett Michaelsen, University of Massachusetts, Lowell

Abstract: In this paper, I examine the "nonfunctional" harmony of certain compositions by jazz saxophonist Wayne Shorter from the 1960s. Although his music employs the traditional building blocks of tonal music, he often does not use these materials in functional ways. I construe jazz harmonies of this era as chord-scales, simultaneously vertical and horizontal harmonic entities that emerged in jazz pedagogy around this time. In fact, the conflation of the vertical and horizontal dimensions of harmony represented by chord-scales may have caused jazz composers to become less interested in expressing key centers using traditional tonal means. I employ music theorist Dmitri Tymoczko's concept of scale networks, which are networks of closely related diatonic, octatonic, harmonic, acoustic, hexatonic, and whole-tone scales, to provide the harmonic spaces within which the compositions travel. My analyses map the succession of chord-scales traversed by the tunes "Yes and No," "E.S.P.," "Juju," and "Iris" through chord-scale space that provides a cogency in chordal succession in Shorter's compositions akin to that afforded by fifth relations in more conventional jazz. By focusing on a network of chord-scales, this method reveals a different conception of Shorter's "nonfunctional" harmony, and also suggests a mental map of the harmonic terrain that performers might employ during improvisation.

Reflection on Strunk's Tonnetz
Joon Park, University of Oregon

Abstract: This paper clarifies metaphysical difference between Strunk's and the other Neo-Riemannian theorists' Tonnetz operations. Strunk's preference for using proper terms employed in geometry (translation, rotation, and reflection), enables him to move away from the conventional use of Neo-Riemannian operations that are rooted on "contextual inversion." Building on Strunk's operations, I will show how Strunk's conceptual re-grounding of the Tonnetz enables us to visualize relations that were previously not possible. For instance, if we map Z -related sets on the Tonnetz, we get two identical shapes related by translation, rotation, or reflection. This is possible because we can reinterpret Tonnetz as a map of intervals: vertical axis for major 3rd, horizontal for minor 3rd, main-diagonal for perfect 5th, and minor-diagonal for minor 2nd. Because of this property, any two pc -sets with the same interval-vector would be represented with the same number of line-segments. Furthermore, we can show the root

motion of the triton substitution (ic 1) as having an analogous conceptual distance as the root motion of V-I (ic 5) because both of them occupies the same length on the Tonnetz. This feature is particularly useful in jazz idiom because the two root motions are used more-or-less interchangeably in jazz. I will demonstrate analytic potential of Strunk's Tonnetz operations with my analysis of Shorter's "Fee-Fi-Fo-Fum" and Webern's "Concerto for Nine Instruments, op.24."

Metrically Dissonant Layers of Swing: Double Time in Two of Louis Armstrong's Performances of "Lazy River"

Matthew J. Voglewede, University of Oregon

Abstract: The existing literature on tempo perception has given little attention to the phenomenon of "double time" in jazz. Double time is defined by the New Grove Dictionary of Jazz as "the apparent doubling of the tempo [...] achieved by halving the prevailing note value." This definition raises questions: When is "halving the prevailing note value" perceived by listeners as a tempo doubling, rather than a simple rhythmic diminution within an unchanged tempo? Why is this effect more common in jazz than in other genres? And why only an "apparent" doubling---what would suggest that the tempo has not changed?

In this paper I hypothesize that double time in jazz is the result of a tension between two style-specific cues for tempo perception. The first is harmonic rhythm, established as a tempo cue by the theme-and-variations form of most jazz performances. It typically suggests the same tempo throughout a performance. The second cue is swing rhythm, i.e., unequal subdivision of the beat as a rhythmic norm. Drawing on Harald Krebs' concept of metrical dissonance, I argue that swing at a given tempo is dissonant with swing at twice that tempo. This allows swing rhythms to suggest a tempo doubling more strongly than "straight" (equal) subdivisions of the beat. Using this analytical framework, I examine Louis Armstrong's use of double time in two performances of Hoagy Carmichael's "Lazy River" and show how, in the later performance, Armstrong chooses rhythms that create a stronger contrast between "normal time" and double-time sections.

Saturday

9:00-10:00: Short Paper Session: Frameworks for Listening

Thoroughly Nested Sentences and Formal Perception in Two of Scriabin's Early Preludes
Keith Salley, Shenandoah Conservatory

Abstract: Since the publication of William Caplin's "Classical Form," much scholarship has explored variants of sentence themes and other sentential passages. This presentation contributes to this body of work by discussing the effects of nested sentences on formal perception in two early preludes by Alexander Scriabin. In doing so, it extends our understanding of sentential forms in music of the late nineteenth century. It also reveals an interesting compositional device that affects the level at which listeners track form.

BaileyShea (2004) and Richards (2011) both acknowledge nested sentences, but limit their definitions to the extent that not all vital sentential components (basic ideas, continuation) must exhibit sentential traits within themselves. I define a thoroughly nested sentence as one that exhibits traditional sentential proportions and functions, and whose basic idea and continuation are sentence themes, too. Thoroughly nested sentences involve progressions of increasingly strong points of harmonic arrival, as well as an increase in the size of analogous form-functional components. These traits enable them to propel a

listener's perspective of form outward. Scriabin's demonstrates his sensitivity to this effect in two of his early preludes (op. 11, nos. 7 and 16) by inserting small counteracting groupings at or after the conclusions of thoroughly nested sentences. These groupings work against the notated meter and help bring listeners' attention back to the surface level.

Electric Evolutionary Fairytales: Binary State GIS, Mendelian Genetic Metaphor, and Boolean Symbolism for Schoenberg, Schumann, and Others
Joshua Mailman, University of California, Santa Barbara

Abstract: This paper combines the musical tradition of organic-biological metaphors with Lewin's (1987, 1995) Binary-State GIS in order to interpret text-painting and form. Like biological organisms, each musical object has identifiable traits. And the flux of such traits portrays diversity and evolution of biological and musical things. A trait may be viewed as a binary state: present vs. absent. This fuses several benefits. First: it enables the application of Lewin's Binary State GIS beyond the uses Lewin originally proposed. Second: it allows sets of binary states to be treated statistically to model similarity and continuous flux. Third: pattern modeling tools of extra-musical binary state systems such as gene expression/repression and manipulation (motivic evolution as inheritance of traits) as well as electric circuit switching can be applied to music. Fourth: the expressive interaction between semantic binary oppositions in a sung text and binary states in music can be modeled (shown in computer animations). The approach is demonstrated in analyses of Schoenberg's Op.19, No.3, the medieval song *En ce dous temps d'este* (Le lai des Harlequines) from Roman de Fauvel, Berg's *Lied der Lulu*, and Schumann's *Märchenbilder* (Fairytale Pictures).

Mahler's Contrapuntal Practice: Form and Voice Leading in the Adagietto
Andrew Nicolette, Louisiana State University

Abstract: Gustav Mahler's Adagietto is among his best known works. The Adagietto stands out from the rest of Mahler's oeuvre for two reasons. First, it is substantially shorter than the typical Mahlerian symphonic movement. Second, it is lightly orchestrated (strings and harp) by comparison not only to its surrounding movements, but also to Mahler's symphonic movements as a whole. These two aspects of this work make it a particularly strong departure point for the examination of Mahler's harmonic and contrapuntal procedures. Previous work on Mahler tends to focus on large-scale harmonic behavior, focusing only a marginal amount of prose on the musical surface. While it is known that Mahler employed a relatively functional harmonic texture, particularly at the middleground and background levels, the highly chromatic nature of his musical surface is less often discussed.

This paper begins with an analysis of the middleground structure of the movement as a platform on which to discuss the musical surface. Specifically, I examine two aspects of Mahler's musical language in the Adagietto. First, I examine the harmonic role of the motive—how the motive can enrich the harmonic structure. The motive is foundational in Mahler's compositional practice; therefore, its harmonic consequences are foundational to understanding Mahler's contrapuntal procedures. Second, I investigate the voice leading that occurs during the modulatory passages. Two voice-leading techniques are highlighted: The first passage examined illustrates Mahler's use of semitone voice leading; in the second passage, non-functional and highly chromatic harmonic progressions prolong a dissonant sonority.

Symphonic Hearing: Listening as Active Participation
Daniel Stevens, University of Delaware

Abstract: Musically gifted students are intrinsically motivated to participate in musical experiences. Whether playing an instrument or singing along with a favorite tune, these students integrate listening and active participation seamlessly in an of “symphonic hearing.” Ironically, conventional approaches to aural skills pedagogy often place students in a passive, disengaged position relative to classroom musical examples, leaving them unable to connect the requisite skills and learning objectives with other types of musical experience.

Building on the work of Nancy Rogers, Peter Schubert, and Daniel Stevens, this paper provides a coordinated set of listening strategies, solo and group improvisation exercises, and aural analysis assignments that enables advanced undergraduate and graduate students to listen attentively, actively, and productively to diatonic and chromatic harmony, cadences, modulating phrases, and sonata-length movements. In each exercise, students learn to sing and embellish a continuous harmonic “guide tone” in order to track in real time the large-scale harmonic design of a piece. I conclude by discussing the pedagogical advantages of this ear-based analytical method over more score-based approaches. By prioritizing advanced analysis-by-ear, students learn to approach the score with specific, musical, personally meaningful questions—and to discover that what may look straightforward on paper may hold delightful challenges for the ear.

10:15-11:15 Long Paper Session: Speech and Motion, Rhythm and Meter

Groove, Variety, and Disjuncture in the Rap of Antwan André Patton (aka Big Boi)
Mitchell Ohriner, Shenandoah Conservatory

Abstract: In discussions of popular music, the concept of groove is increasing central. Groove in hip-hop shares features of groove in other genres: multiple instrumental layers create a stable composite rhythm that facilitates physical actions among listeners. Yet groove in hip-hop is distinguished from other genres by the addition of a highly variable and uniquely constrained vocal layer. This rapped layer contributes to the groove through rhyme, repeated rhythmic cells, and alignments of syntax and meter. But because available rhyming words are limited, the emergent rhythms within a rapped verse, unlike those of instrumental tracks, are often multiple and conflicting. And because hip hop prioritizes continuous physical engagement, the junctures of contiguous emergent rhythms are often ameliorated. In this presentation, after offering a method of representing emergent rhythms in rap, I will examine such junctures in three verses by Antwan André Patton (aka Big Boi) of the Atlanta-based duo OutKast.

The analyses presented demonstrate both a key aspect of Patton’s performance practice and the analytical methods necessary to document it. These methods include representations of speech’s sonic and temporal features—features that go unnoticed in conventional Western music notation—as well as the subtle temporal relationships between rapped verses and accompanying instrumental tracks. Yet by attending to the interplay between that which is repeated and that which is variable in Patton’s grooves, the contribution of this study to discussions of collective music making extends beyond its focus on hip-hop.

Analyzing Music and Dance: Tchaikovsky and Balanchine
Kara Yoo Leaman, Yale University

Abstract: George Balanchine (1904-83), one of the most prolific and influential choreographers of the twentieth century and a highly trained musician from the St. Petersburg Conservatory, created ballets that epitomized the partnership of music and dance on the stage. His famous motto, “See the music; hear the dance,” encapsulates both the musicality Balanchine aspired to in his choreography as well as the ideal merging of music and dance he hoped to present to his audience in the multimedia ballet performance.

While dancers, musicians, and critics have long discussed the musicality of these works, their analysis has largely eluded both dance and music scholarship.

In this paper I propose a method for transcribing rhythmic elements of dance steps onto a musical score that enables the analysis of “choreomusical” interactions. Using excerpts from one of the best-known Tchaikovsky-Balanchine ballets, *Tschaikovsky Pas de Deux*, I will show how this music-based notation system can afford both an in-depth look at specific moments as well as larger views of metric processes. The analysis will shed light on how Balanchine controls the intersection and divergence of media over the course of a work, beginning by closely coordinating multiple parameters, gradually loosening them, building a crescendo of divergent activity that closes with a satisfying resolution, all the while keeping music and dance tied together by the shared pulse.

11:15-12:15 Short Paper Session: In Memoriam Steven Strunk II

A Study of Bill Evans’ “Displacement”: Intentional Schenkerian, PC-Set, and Serial Principles
Yung-Ching Yu, University of Kentucky

Abstract: The composition “Displacement” appeared on Bill Evans’ 1956 inaugural trio album, *New Jazz Conception*. Appearing a year after Evans had enrolled as graduate student in composition at the Mannes School of Music, this album, his work in New York City, and his enrollment at Mannes coalesced to form the beginning of Evans’ professional life. While at Mannes it is likely that Evans was introduced to Schenkerian analysis, which had been incorporated into instruction there as early as 1931. There is conjecture that Evans was influenced by Schenker’s theory, especially the notion of fundamental structure, as well as by other analytical and compositional techniques he was exposed to at Mannes. This paper investigates the apparent influence of Mannes on Evans’ musical thought as evidenced in “Displacement.”

I explore the compositional and performance aspects of the head and first improvisational chorus of “Displacement” via David Schroeder’s four approaches—formal, rhythmic, intervallic, and psychological—to improvisation. These approaches frame a more detailed consideration of the harmonic patterns, rhythmic displacements, pitch-class sets, serial presentations, and Schenkerian structural levels apparent in the piece. Finally, noting Evans’ own later statements regarding his process of finding a piece’s “fundamental structure” and then working “from there,” I suggest that Evans likely proceeded from a Schenkerian background-level structural conception toward his actualized performance of “Displacement.”

Syncretism in David Baker’s Piano Compositions
Vasil Cvetkov, Southeastern Louisiana University

Abstract: David N. Baker (b. 1931) has established himself as an internationally known music educator, composer, performer, and conductor. His long and impressively varied catalog of compositions includes only three works for solo piano. This study explores the musical language of these three works in detail, and thus provides a window into the compositional pallet of a prolific and highly eclectic African-American composer.

The primary purpose of this study is to analyze the specific melodic and harmonic themes as well as the motives in three piano solo pieces composed by David Baker. Piano Sonata I, written in 1968, is Baker’s longest and most significant solo piano work. The titles of the three movements, “Black Art,” “A Song—After Paul Lawrence Dunbar,” and “Coltrane,” clearly evoke African-American culture and form a bridge

to specific events and people involved in the American Civil Rights Movement. Baker's Five Short Pieces for Piano, composed in 1970, are all indebted in varying degrees to the blues. Throughout the cycle, Baker uses frequent changes of meter and flexible rhythms which complement the jazz-influenced harmonies and bluesy themes. Jazz Dance Suite, written in 1989, is a composition in four movements—four different dances.

The final part will include a conclusion about Baker's piano music, and will summarize my ideas about it. I will review his legacy-performers, and theorists, who analyzed his works, and I will show his influence on music up to present day practices.

Microtime in Jazz Drumming: The Beat-Upbeat Ratios of Philly Joe Jones
Dustin Mallory, Rutgers University

Abstract: This paper analyzes the microrhythmic timing of the jazz drummer Philly Joe Jones. The framework of this study will be to look at the durational value of eighth-notes that “swing.” Using his recordings with the first Miles Davis Quintet, Joe will be a case-study of how to analyze a drummer's “time-keeping.” The ride cymbal is commonly associated with time-keeping in jazz and the durations are found by flagging the exact timings of each stroke of the cymbal.

The values of these durations will be expressed in terms of their Beat-Upbeat Ratio (BUR). The paper will investigate a sample of recordings with a broad range of tempi. The goal will be to see how much his BURs change with the varying tempi. Typically, there is a direct correlation or “normal distribution” of BURs in relation to increased or decreased tempi. Finally, the distribution of Joe's BURs will be compared against similar studies of other jazz drummers. This analysis will show how much BUR variation exists and whether the variation is more or less substantial than other drummers.

Harmonic Idioms in the Piano Music of Scott Joplin
Yosef Goldenberg, Jerusalem Academy of Music and Dance and The Hebrew University of Jerusalem

Abstract: The piano music of Scott Joplin includes fascinating moments often located within a square framework. This feature is analogous to the surface syncopation within square hyper-rhythm in the ragtime pieces. Nevertheless, the harmonic features seem to appear in a rather similar manner in the waltzes and marches as well. Despite classical precedents for most idioms, their ubiquity in the music of Scott Joplin amounts to the extent of a fingerprint.

Special idioms include:

- a. Various variants of third-related modulations, especially in the consequents of modulating parallel periods (demonstrated from *The Entertainer*, *The Chrystanthemum*, *Weeping Willow* and *Sarah Dear*, compared with a precedent from Tchaikovsky). Joplin explores a large variety of pivot chords.
- b. The interpretation of VI as its enharmonic dissonant equivalent, an alteration of II (as in the end of *Bethena*). This usually takes the form of II #4/3 before cadential six-four chords (as in *Strenuous Life* and *Something Doing*). A passage from *A Breeze from Alabama* combines both techniques where the pivot chord becomes II #4/3.

Other interesting passages include larger, out-of-phrase third-related modulations based on the omnibus progression (in *Bethena*); a momentary tonal disorientation despite a clear V7-I progression, due to emphasis on the dissonant interval alone to chromatic ornaments (in *The Crush Collision March*), and a special deviation from the classical mid-period lead-in fitting the beginning of each phrase on the unstable scale degree 6 (in *The Easy Winners*).

2:45-4:15 Long Paper Session: Conceptualizing Harmonic Space, Distance, and Transformation

Schubert's Harmonic Language and the Tonnetz as a Continuous Geometry
Jason Yust, Boston University

Abstract: Because of the clear value of the Tonnetz for explaining the exceptional features harmonic language of composer like Schubert, such as his extensive use of mediant related keys and major-third cycles, it is widely used by analysts despite flaws that limit its applicability. Among these are the fact that it relates only major and minor triads, and not other kinds of tonal chords or collections, and that it is a lattice rather than a true geometry. We can eliminate these problems by reconstructing the Tonnetz using the discrete Fourier transform (DFT) on pcsets. Ian Quinn uses the magnitude components of the DFT to define a quality space for set classes. To define a harmonic phase space, I instead use the phases of the two main components of tonal pcsets, the frequency-3 and -5 components, which represent a pcset's nearest augmented triad and circle-of-fifths balance, respectively. The arrangement of triads, consonant dyads, and singleton pcs in this space reflects the structure of the Tonnetz. However, we can plot any pcset or multiset in it.

With this more versatile tool we can explore issues of chord vs. collection, Tonnetz regions vs. Weber regions, common-tone transitions, and the transgression of affective major-minor boundaries in Schubert's A minor Quartet, late Piano Sonatas, and C-major Quintet.

"A Flight into the Exotic Distance": Harmony and Voice Leading in the Act IV Duet from Bizet's Carmen
Andrew Pau, Oberlin College

Abstract: In a 2006 analysis of a duet from Don Carlos, Giorgio Sanguinetti argued that "Verdi utilize[d] techniques of tonal coherence, not as an end in themselves, but as the means to enhance dramatic effect." I submit that in the final duet from Carmen, Bizet similarly used "techniques of tonal coherence" to enhance dramatic effect. However, while Verdi's duet fits neatly within a Schenkerian structure, I argue that Bizet's duet exhibits a different type of voice-leading and harmonic coherence: namely, one based on ascending chromatic motion and common-tone preservation.

The concluding section of Bizet's duet reflects a degree of formal breakdown: the escalating confrontation between Carmen and Don José is interrupted several times by the crowd inside the bullring, until José finally kills Carmen and surrenders to the authorities. While the passage reflects abrupt and outwardly incongruous changes of harmony, further analysis reveals that there are coherent elements that underlie the traversal of apparently unrelated key areas.

Heinrich Schenker wrote in 1926 that "[e]ven the hitherto most successful flight into the exotic distance — that of a Georges Bizet — by any reckoning adds up to scarcely more than the narrowly restricted sight of an infant in his cradle when compared to the unlimited vision of a German musical genius . . ." My analysis shows that in covering harmonic "distance" in short bounds in the final duet from Carmen, Bizet arguably succeeded in achieving coherence and dramatic truthfulness through harmonic means, albeit in a way that Schenker would not have appreciated.

Scriabin's Harmonious Unity: Unity through Transposition in Alexander Scriabin's Op. 69, No. 2
Jeff Yunek, Louisiana State University

Abstract: As Scriabin entered his post-tonal compositional phase, his philosophical thoughts became intensely focused on one central idea: his principle of unity, wherein all aspects of life and art were considered inextricably linked. While the two prevailing methods of analysis on Scriabin's post-tonal music—maximally pitch-class invariant transposition and parsimonious voice leading—exhibit such unity in the form of shared common tones, neither of these theories has extended to an entire work, leaving a fully unified analysis unattainable. I propose expanding the maximally invariant transposition theory on Scriabin's music to include both crisp and fuzzy transposition in order to analyze entire works. The significant aspect of this expansion is that the same intervals that govern maximally invariant crisp transposition in Scriabin's late music also govern fuzzy transposition. By analyzing entire works through maximally invariant transposition, I show large-scale harmonic unity in Scriabin's post-tonal music through correspondences between a work's large-scale transpositional structure and its underlying collections' maximally invariant transpositions.

4:15-5:15 Long Paper Session: Revision and Response

Leonhard Euler's Tentamen novae theoriae musicae and the Inheritance of 17th Century Philosophy
Zachary Bernstein, CUNY Graduate Center

Abstract: Leonhard Euler's *Tentamen novae theoriae musicae* (1739) proposes that “music theory rests upon dual foundations”: natural science, which investigates the nature of sounds, and metaphysics, which investigates the human experience of those sounds. The scientific foundation is the physical nature of sound itself, presented in the language of Newtonian mechanics. The metaphysical foundation is the complex of principles that make certain sounds, musical sounds, pleasing. Essentially, “order” – “an arrangement of parts according to a definite rule” – leads to three interrelated things: perfection, ease of perception, and pleasure. As several scholars, including François-Joseph Fétis and Benjamin Downs, have noted, aspects of Euler's metaphysics are heavily borrowed from Gottfried Wilhelm Leibniz, who similarly proposes that rational order creates perfection and perfection leads to pleasure. However, other aspects of Euler's metaphysics, particularly on the nature of perception and its relationship with pleasure, suggest another influence: René Descartes. Further confirmation of the influence of Descartes on Euler is found in several striking similarities between their respective theories of rhythm. Therefore, Euler's *Tentamen* combines three conflicting strands of 17th-century thought, originating from Descartes, Leibniz, and Newton. The result is, if not entirely coherent, a window into the varied intellectual – and, thus, music-theoretical – life of the early Enlightenment.

The Ursatz and Liszt's Revisions
Michael Vitalino, University of California, Santa Barbara

Abstract: The notion that a composition is in its definitive, and thereby preeminent, form upon publication is fairly traditional. The fact that Western Art Music's history is primarily taught via a musical canon testifies to this tacitly accepted understanding. The field of Schenkerian analysis is no exception to this assumption; this analytical system accepts that the printed music is a definitive presentation of a composer's musical genius in its most complete form. It does not, however, account for compositional process and alternate versions.

Since theory often presupposes the final version of a work is the only material by which discourse may occur, several questions remain unanswered. What are the ramifications of the compositional process for

the Ursatz? Should one assume that an Ursatz remains the same throughout subsequent revisions or versions of a work? In order to better answer these questions, I analyze three of Liszt's songs and their revisions: *Morgens steh ich auf und frage* (1844/1860), *Der du von dem Himmel bist* (1843/1856/1860), and *Wer nie sein Brot mit Tränen aß* (1848/1860).

By comparing the Ursatz of later versions and revisions to an earlier work, we can discern or refute possible relationships between these songs after the composer's substantial reworking. I explore the extent to which we can conceive the Ursatz as a practical analytical tool that can be used to understand a composer's compositional and revisional processes. The Ursatz, typically serving as a representation of a single piece, becomes an a posteriori construct in comparative analysis.