



International Conference

March 29–31 2023

**Bibliothèque François-Mitterrand
Petit Auditorium
Quai François Mauriac
75013 Paris**

Epistemologies of Music Analysis

What Theories
What Methods
for **W**hat Types of Music
in **W**hat Disciplinary and Cultural Contexts?

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for What Types of Music,
and in What Disciplinary and Cultural Contexts?**

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Epistemologies of Music Analysis EMA-2023

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International Conference organized by the
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Sorbonne Université,
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in collaboration with a consortium of institutions, societies, and research networks.



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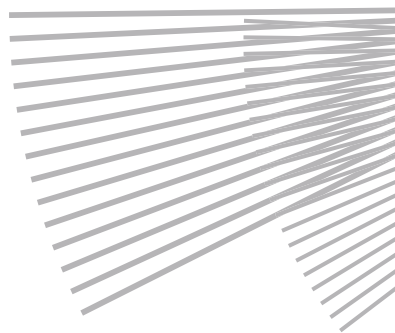
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	Wednesday 29	Thursday 30	Friday 31
08:30		Coffee / Registration	Coffee / Registration
09:00		Session 2	Session 4
09:15		2.1. Riccardo Castagnetti Between Example and Exemplar: 18 th -Century Music Analysis in Giambattista Martini and Giuseppe Paolucci	4.1. Netta Huebscher Invoking the Modal Nymph: the Emergence and Dissemination of the Concept of Modality in Swedish Folk Music
09:30	Coffee / Registration	2.2. Philippe Lalitte Les outils audionumériques d'analyse du son et de la musique dans le cadre de l'analyse d'interprétations enregistrées : objectifs, méthodes et limitations	4.2. Corinne Frayssinet Savy Rythme, silence, mouvement à la croisée épistémologique de l'ethnomusicologie et de l'anthropologie de la danse
09:45			
10:15			
10:45		2.3. Pierre Couprie Les modes d'existence des objets numériques en analyse musicale : vers une musicologie contextuelle	4.3. Adam Filaber Musical Syntax in the Context of Western Harmonic Theory
		Coffee	
11:15	Introduction	2.4. Pablo Gómez Ábalos Corporeal Music: A Theory of Three-dimensional Analysis under the Concepts of Expressive Complex (EC) and Emotional Form (EF)	4.4. Sebastian Wedler Making Worlds of Musical Time: Nelson Goodman, and the Epistemological Divide Between Schenkerian and Neo-Riemannian Theory
11:30	Keynote ① Daniel K. L. Chua Epistemological Musings: An Object Lesson in Changing the Subject	2.5. Lee Cannon-Brown Analysis, Materialism, and Speculation	4.5. Stefano Mengozzi Theory, Analysis, History
11:45			
12:15			
12:30	Tour of the Venue	Keynote ③ Nicolas Meeüs Music writing and analysis	Keynote ④ Thomas Christensen Epistemologies of Music Theory: Yesterday and Beyond
13:15	Lunch		

	Wednesday 29	Thursday 30	Friday 31
15:15	Session 1	Session 3	Session 5
15:30	1.1. Anna Yu Wang Knowing Texture through Sociality	3.1. Bassirima Kone Problématiques identitaire, fonctionnelle et analytique des musiques africaines du Bêrê au Coupé-Décalé	5.1. Ron Cohen Formalizing the Unformalized: a Case Study in Hindustani Music Towards a Theory of Voice Leading Assisted by MIR Tools
16:00	1.2. Jakob Uhlig Analyzing Musical Analysis: A Case Study of the Reception of Chromatic Completion in the Works of Fritz Heinrich Klein and Nicolas Obouhow	3.2. Sylvie Le Bomin To the Roots of Gabonese Musical Heritage	5.2. Jean-François Goudesenne Analyses apologétiques de quelques chefs-d'œuvre « grégoriens » : quelle résistance face aux données archéo-philologiques d'une genèse par réécritures successives ?
16:30	1.3. Adrien Malemprez L'exotisme musical cinématographique : méthodes d'analyse et problématiques	3.3. Holy Razafindrazaka L'analyse selon les cultures, cas de Madagascar	5.3. Richard Freedman & Philippe Vendrix What Can We Teach Machines about Renaissance Counterpoint, and What Can They Teach Us about Analysis ?
17:00	Coffee		
17:30	1.4. Lennart Ritz Sonic Traces: Analysis and Sound Recordings in Comparative Musicology	3.4. Martin Scherzinger Meter, Africanized	5.4. Antoine Petit The Best of Both Worlds: On Continuous Ontologies, Mixed Methodologies, and Regaining What Is Lost in (Popular) Music Analysis
18:00	1.5. Nidaa Abou Mrad Generative Grammar, Semiosis and Emotional Neurocognitive Evaluation of Musical Enunciation Relating to Modality	3.5. Chae-Lin Kim What is the Proper Way to Analyze Signed Music? Music in Deaf Culture	5.5. Olivier Lartillot Towards a Comprehensive Modelling Framework for Computational Music Transcription/Analysis
18:30	Keynote ② Ariane Jeßulat The Language of the Conquerors: Music Theoretical Standards as Colonial Mimicry		Closing discussion
19:30	Cocktail	Dinner for active participants	

EMV



The background features several clusters of thin, grey, radiating lines that fan out from various points, creating a sense of movement and depth. These clusters are positioned around the central text. The text is rendered in a clean, sans-serif font, with the year '2023' being the most prominent element.

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Synopsis

The globalisation of culture has led to an unparalleled interaction between people, ideas and cultural production, including, of course, music. Such interconnectedness, enabled by digital technologies, has made us more aware of the broad range of music past and present around the world. In particular, it has forced music analysis – and musicology more generally – to open up to this diversity in order to understand it both from the inside and in relation to its socio-cultural, intellectual and historical environment.

However, such an endeavour creates a dilemma for analysis: either we design and develop universal methods, tools and concepts that risk glossing over the particularised contexts and issues relating to specific types of music, or we develop local approaches to address specific and contextual concerns that could hinder a broader understanding of the inter-relationship of repertoires and themes precisely at a time when musicology is becoming increasingly interconnected.

The aim of this conference is to identify possible ways out of this dilemma. By looking at music in terms of both its diversity and unity, and by drawing on a wide range of analytical theories, methods, discourses and practices according to disciplinary and cultural contexts, our hope is to find analytical approaches that combine the global and the local within a shared and unified intellectual framework.

Analysis and Musicology

Although the notable ascent in the status of music analysis over the course of the 20th century had little impact on the edifice of German *systematische* and *historische Musikwissenschaft* (Adler 1885), it was an important factor in the transformation of musicology in the French-speaking world. Drawing on semiology and linguistics, analysis has had a lasting impact on the discipline in French-speaking countries and has spurred the development of digital musicology since the early 1990s (Guillotel-Nothmann 2020, 48). In the United States, music theory has led to highly formalised approaches which are largely dissociated from (historical) musicology. This separation has been criticised by New Musicology, which focuses on areas such as deconstruction, gender studies,

and cultural studies, but does not provide the basis for building an intellectual framework that would link analysis with these fields (Agawu 2004, 268–270 and 279–280). The aim of a more generalised musicological programme, as formulated by Molino (1975) and Nattiez (1987, 2007, 2010), would be to remedy this situation by applying a tripartite analytic semiology as a framework for the establishment of a “discipline that is at once systematic, historical and anthropological, capable of integrating music and its context, the variables and constants of its evolution” (Molino 1990). However, this programme leaves open many questions concerning the construction of the object of study (Delalande 2019); the application of principles, models, and methods that are identical to all music; and, finally, the usefulness of an approach that focuses on general, or even universal features in order to uncover the specific workings of individual repertoires.

- Do semiotic, aesthetic, historical, sociocultural, pedagogical or historiographic implications make analysis and theory dependent on these related disciplines?
- How can experiences from various repertoires, issues, and needs contribute to the development of a general musicology?

Analysis, Its Methods, and Its Discourses

Analysis involves the application of models and abstractions that are the result of theoretical assumptions about the organisation of music and its relationship with the world. Questioning the ideological implications of music analysis is not limited to identifying philosophical preconceptions, but also leads to a reflection on the objects, types of statements, concepts, language, and theoretical foundations that underpin this activity. Thus, it is possible to question the conditions that structure the theoretical models and the analytical results that are produced. Music analysis has also focused on the type of discourse to be carried out on the work. Such an enquiry often takes the form of structural semiotics, leading to a discretisation (and segmentation) of the work. However, there is another approach that emphasises the transformational process and seeks to understand the work not as a collection of interconnected objects, but as the (hierarchical) result of a series of transformative operations. This section examines the idea of analysis itself as a particular approach to the universal phenomenon we call music.

- Where do analytical activities and the models that underpin them stand in relation to discursive practice, knowledge, and science?
- What are the (scientific) assumptions of differing analytical approaches?
- What are the truth conditions of the theoretical models and the analytical results that they produce? To what extent are these truth conditions overtly identified and addressed by the analyst employing a given method?
- When and under what conditions can collaborative, open, and evolving analysis take place?

Analysis According to Cultures

The coexistence of multiple discourses on a variety of musical systems from a wide range of cultural and historical contexts implies that analysts and theorists alike are faced with the challenge of engaging with different systems of representation without being able to fully free themselves from the shackles of their own analytical and cultural biases.

The end of the 20th century and the beginning of the 21st century have seen the emergence of inclusive and cross-disciplinary theoretical and analytical approaches that have forged tools and produced analytical discourses based on both local and global knowledge: for example, the convergence of modal grammars between mediaeval and oriental musicology and the development of a resolutely analytical ethnomusicology (Picard 2007, Labussière 2007, Abou Mrad 2016, Wright 2016). This has enabled links to be established with analytical musicological approaches developed in Tunisia, Lebanon, Iran, India, China, and elsewhere that draw on regional theoretical traditions dating back more than a thousand years.

This section aims to identify the status of analysis and theory in different cultural and historical contexts so as to identify disciplinary paradigms that lend themselves to intersectional approaches.

- How can the consideration of local theories evolve towards an approach that transcends the ideology of difference and the opposition between local and global knowledge?
- Who is to be the judge in validating interpretations of theoretical systems from different cultures?
- Can the analytical traditions of different cultures be formulated within a coherent disciplinary whole?

Analysis and Theories

Analysis is always based on a theory, whether it be explicit or implicit, conscious or unconscious. Thus theory must always precede analysis, given that theory is the bedrock upon which analysis is grounded. That said, analysis can be no more inductive than theory can be: neither is purely deducible from the mere observation of facts. Every theory necessarily starts from some hypothesis or axiom: it begins as a hypothetical proposition based on abductive reasoning, just as an analysis is based indirectly on a similar abductive process grounded in hypothesis.

Unlike “normal” science, which largely consists of “puzzle solving”, the humanities and social sciences are supposed to be part of a “tradition of claims, counter-claims, and debates over fundamentals” (Kuhn 1970, 6). But analytical activity is not inherently divorced from the solving of puzzles based on models, restrictions or rules. The symbolic aspect of music – like any object of study in the humanities and social sciences – nevertheless involves a greater variety of interpretative perspectives, which impacts the theories and calls for a critical discussion of tools in order to achieve the required transparency and intelligibility of scientific demonstration (Weber 1904, 31).

Music theory is not just a propaedeutic subject in the training of performers, teachers and musicologists; it also refers to a set of statements – ancient or modern, Western or Eastern – that aim to describe music in terms of its perceived essence and forms. Given that any musical conceptualisation depends on assumptions that reflect particular cultural, intellectual, geographical, historical and linguistic ecologies, the challenge is not to make these statements converge, at the risk of levelling them and hollowing them out, but to formulate them.

- Does music theory constitute a pedagogical field, a systematic and technical approach to music, or is it a set of abstractions that fall within a particular intellectual and historical framework?
- What are the specific features of individual theoretical discourses (i.e. intentions, audiences, the size and scope of production and status within a more general body of knowledge, etc.) and what are the links between them in terms of their relationship to music, their history and their concepts?
- What potential challenges, issues and strategies would be involved in the development of a truly global and cosmopolitan music theory?

Analysis vis-à-vis Traces, Data, and Musical Repertoires

Although the way we conceive of music and its transmission often focuses on the dichotomy between written and oral traditions, it is important to put this distinction into perspective. Rather than being polar opposites, orality and notation should be considered as a continuum that includes music composed on paper and then performed (two-stage art), music that is pre-composed and recorded, unwritten music that is then transcribed, and music that is created at the moment of performance (one-stage art) (Goodman 1976, 113–114; Genette 1994, 23–24, 86–88). To this question, we can add the problem of choosing the appropriate analytical method to apply to a given corpus and deciding how this method ought to be conveyed, especially in the computer age. Digital musicology has transformed our access to musical sources by making available vast collections of sound-related content (CNRS-Musée de l'Homme Sound Archives, Europeana Sounds, etc.) and scores (the Josquin Research Project, Neuma, etc.). Yet both approaches to the representation of music are organised according to fundamentally different semiotic regimes and thus pose contrary dilemmas for analysis. Written data contains categories (those of notation) that allow music to be examined independently of time, whilst placing limits on the analysis (Meeùs 2019); although the study of sound data is free of these constraints, it faces the challenge of segmenting the sound continuum into analytically discrete relationships. In both cases, appropriate choices need to be made concerning the features to be annotated and the concepts to be deployed.

- Is it possible to analyse performed and recorded music without reference to its sonic dimension? Conversely, can we analyse such output without referring to a graphic representation that doubles as a transcription?
- Can we define “low-level” musicological descriptors, applicable to disparate musical data and, if so, what is the relevance of these descriptors for studying individual repertoires or pieces?
- What are the possible strategies for reconciling “situated” categories, associated with particular repertoires, issues, and practices; and general categories, which lend themselves to the comparison of repertoires and to collaborative study?

Argument

La globalisation culturelle conduit à une interconnexion des personnes, des pensées et des productions culturelles, y compris musicales, comme jamais auparavant. Cette interconnexion, favorisée par le numérique, nous fait prendre la mesure de l'étendue du spectre des musiques passées et actuelles à travers le monde. En particulier, elle force l'analyse musicale – et toute la musicologie – à s'ouvrir pour les comprendre tant de l'intérieur qu'en lien avec leur environnement socio-culturel, intellectuel et historique.

Ce faisant, l'analyse se trouve devant un dilemme. Soit concevoir des méthodes, outils et concepts globaux, mais qui courent le risque de ne pas répondre systématiquement aux besoins spécifiques des musiques et de leurs problématiques. Soit développer des approches locales qui satisfont à des exigences spécifiques et situées, mais qui empêchent une nécessaire mise en relation des répertoires et questionnements à l'heure d'une musicologie de plus en plus interconnectée. Ce colloque se fixe pour objectif d'identifier des voies possibles pour sortir de ce dilemme. En s'interrogeant sur les musiques considérées tant dans leur diversité que dans leur unité et en procédant à un état des lieux des théories, méthodes, discours et pratiques analytiques, selon les contextes disciplinaires et culturels, il s'agira de discerner des trajectoires analytiques qui articulent le global et le local dans un édifice intellectuel partagé et unifié.

L'analyse et la musicologie

Si le changement de statut de l'analyse musicale au cours du xx^e siècle affecte peu l'édifice de la *systematische* et de l'*historische Musikwissenschaft* allemandes (Adler 1885), il constitue un vecteur important pour la transformation de la musicologie francophone. S'adossant à la sémiologie et à la linguistique, l'analyse façonne durablement la discipline dans les pays francophones et stimule dès le début des années 1990 le développement de la musicologie numérique (Guillotot-Nothmann 2020, p. 48). Aux États-Unis, la *music theory* a débouché sur des approches hautement formalisées, largement dissociées de la *musicology* (historique). Cette coupure s'est exposée à la critique de la *new musicology* qui s'ouvre aux thématiques de la déconstruction, des études de genre ou des études culturelles, sans pour autant apporter de clef

à l'édification d'un édifice intellectuel qui articulerait l'analyse avec ces champs thématiques (Agawu 2004, p. 268-270 et 279-280). Le programme d'une musicologie générale, tel que formulé par Molino (1975) et Nattiez (1987, 2007, 2010), voit dans la sémiologie tripartite et son application par l'analyse un cadre propice à l'instauration d'une « discipline à la fois systématique, historique et anthropologique, capable d'intégrer la musique et son contexte, les variables et les constantes de son évolution » (Molino 1990). Ce programme laisse toutefois ouvertes de nombreuses questions qui concernent la construction de l'objet d'étude (Delalande 2019); l'application de principes, modèles et méthodes identiques à toutes les musiques; enfin la pertinence d'une démarche qui se situe au niveau des traits généraux, voire universaux, pour mettre à jour les fonctionnements spécifiques aux répertoires individuels.

- Les implications sémiotiques, esthétiques, historiques, socio-culturelles, pédagogiques ou historiographiques rendent-elles l'analyse et la théorie dépendantes de ces disciplines connexes ?
- Comment les expériences faites à partir de répertoires, de problématiques et de besoins variés peuvent-elles contribuer au projet de la musicologie générale ?

L'analyse, ses méthodes et ses discours

L'analyse met en application des modèles et des abstractions qui sont le résultat de présupposés sur l'organisation de la musique et son rapport au monde. Questionner le fonctionnement idéologique de l'analyse musicale ne se limite pas à identifier des présupposés philosophiques, mais conduit à une réflexion sur les objets, les types d'énonciation, les concepts et les fondements théoriques qui sous-tendent cette activité. On a pu questionner les conditions de vérité des modèles théoriques et des résultats analytiques produits. L'analyse s'est interrogée aussi sur le type de discours à mener sur l'œuvre. Ce questionnement a souvent pris une forme sémiotique structurale, aboutissant à une discrétisation (et à une segmentation) de l'œuvre. Mais une autre approche privilégie au contraire le processus transformationnel, qui cherche à comprendre l'œuvre non pas comme une collection d'objets interconnectés, mais comme le résultat (hiérarchisé) d'une série d'opérations de transformation. Cette section s'interroge sur le principe même de l'analyse en tant qu'approche particulière d'un phénomène universel : la musique.

- Où se situent les activités analytiques et les modèles qui les sous-tendent sur l'axe qui relie la pratique discursive, le savoir et la science ?
- Quels sont les présupposés (scientifiques) des approches analytiques ?
- Quelles sont les conditions de vérité des modèles théoriques et des résultats analytiques produits ? Dans quelle mesure ces conditions de vérité font-elles l'objet de discussions et sont-elles identifiées par les méthodes dans le cadre d'une démarche autoréflexive ?
- À quand, et sous quelle condition, une analyse collaborative, ouverte, en mouvement ?

L'analyse selon les cultures

La coexistence d'une pluralité de discours sur une diversité de systèmes musicaux relevant d'une multiplicité de contextes culturels et historiques place les analystes et théoriciens devant le défi de devoir articuler différents systèmes de représentation sans pour autant pouvoir s'affranchir pleinement de leurs propres perspectives analytiques.

La fin du ^{xx}e siècle et le début du ^{xxi}e siècle ont vu émerger des approches théoriques et analytiques intégratives et transversales qui ont forgé des outils et qui ont produit des discours analytiques reposant sur des connaissances à la fois locales et globales : convergences des grammaires modales entre musicologie médiéviste et musicologie orientaliste et élaboration d'une ethnomusicologie résolument analytique (Picard 2007 ; Labussière 2007 ; Abou Mrad 2016 ; Wright 2016). Ceci a permis une mise en synergie avec des démarches musicologiques analytiques formulées en Tunisie, au Liban, en Iran, en Inde, en Chine, etc., en lien avec des legs théoriques régionaux plus que millénaires.

Cette section a pour objectif d'identifier le statut de l'analyse et de la théorie selon les contextes culturels et historiques dans l'optique d'identifier des paradigmes disciplinaires qui se prêtent à des approches transversales.

- Comment la prise en compte de théories locales peut-elle évoluer vers une approche qui dépasse l'idéologie de la différence et l'opposition entre connaissances locales et connaissances globales ?
- Qui est juge pour valider des interprétations de systèmes théoriques de différentes cultures ?
- Comment articuler entre elles les traditions analytiques de différentes cultures dans un ensemble disciplinaire cohérent ?

L'analyse et les théories

L'analyse repose toujours sur une théorie, explicite ou implicite, consciente ou inconsciente. La théorie précède l'analyse, parce que celle-ci se fonde sur elle. Pas plus que la théorie elle-même, l'analyse ne peut être inductive : ni l'une ni l'autre ne peuvent être déduites d'une simple observation des faits. Toute théorie part nécessairement d'une ou de plusieurs hypothèse(s), d'axiomes : elle est hypothético-déductive, ou abductive, et l'analyse repose indirectement sur ces mêmes hypothèses.

Contrairement aux sciences « normales » qui portent sur la « résolution d'énigmes », les sciences humaines et sociales sont censées s'inscrire dans une tradition « d'affirmations, de réfutations et de débats sur des questions fondamentales » (Kuhn 1970, p. 6). Mais l'activité analytique n'est pas étrangère en soi à l'exploration d'énigmes à partir de modèles, de contraintes et de règles. Le caractère symbolique de la musique – à l'instar de tout objet d'étude en sciences humaines et sociales – implique toutefois une plus grande hétérogénéité des points de vue interprétatifs, qui affecte les théories et réclame une discussion critique des outils afin de satisfaire à l'exigence d'une démonstration scientifique transparente et intelligible (Weber 1904, p. 31).

La théorie musicale n'est pas seulement une discipline propédeutique pour les interprètes, les professeurs et les musicologues, elle renvoie aussi à un ensemble d'énoncés – anciens ou modernes, occidentaux ou orientaux – qui visent à décrire la musique dans ce qui est perçu de son essence et de ses manifestations. Compte tenu du fait que toute conceptualisation musicale dépend de prémisses qui se font l'écho d'environnements culturels, intellectuels, géographiques, historiques et linguistiques particuliers, l'enjeu ne consiste pas à faire converger ces énoncés, au risque de les niveler et de les vider de l'intérieur, mais à les articuler.

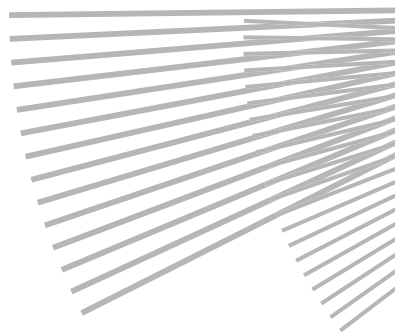
- La théorie musicale est-elle un domaine pédagogique, une approche systématique et technique de la musique, ou est-elle un ensemble d'abstractions qui se situent dans un espace intellectuel et historique déterminé ?
- Quelles sont les spécificités des discours théoriques individuels – intentions, publics, volume de la production, statut au sein d'un édifice de connaissances plus général, etc. – et quels sont les liens qui se tissent entre eux sur le plan de leur rapport à la musique, de leur histoire ou encore de leurs concepts ?
- Quels sont les défis, enjeux et stratégies possibles dans la construction d'une théorie musicale globale et cosmopolite ?

L'analyse face aux traces, données et répertoires musicaux

Si la réflexion sur les musiques et leurs modes de transmission place souvent au premier plan une dichotomie entre écrit et oral, cette opposition doit être relativisée. Plutôt que des pôles antinomiques, l'oralité et l'écriture doivent être envisagés comme un continuum qui parcourt notamment les musiques conçues par écrit puis interprétées (musiques à deux phases), les musiques pré composées et enregistrées, les musiques non écrites puis transcrites et les musiques conçues au moment de la performance (musiques à une phase) (Goodman 1976, p. 113-114 ; Genette 1994, p. 23-24, 86-88). Sur cette question vient se greffer celle des problématiques et des méthodes analytiques selon les musiques et leurs modes de transmission, notamment à l'ère de l'informatique. La musicologie numérique a transformé l'accès aux sources musicales en mettant à disposition de vastes collections sonores (Archives sonores CNRS-Musée de l'Homme, Europeana Sounds, etc.) et écrites (The Josquin Research Project, Neuma, etc.). Ces collections se caractérisent par des régimes sémiotiques fondamentalement différents. Alors que les données écrites comportent en elles des catégories (celles de la notation) qui permettent de considérer la musique hors temps mais contraignent l'analyse (Meeùs 2019), l'exploration des données sonores est affranchie de ces contraintes mais se heurte au défi d'une discrétisation du continuum sonore. Dans les deux cas, des choix adaptés doivent être faits sur les éléments à annoter et sur les concepts à utiliser.

- Peut-on analyser des musiques jouées et enregistrées sans faire référence à leur face sonore ? À l'inverse, peut-on analyser de telles productions sans se référer à une représentation graphique, faisant office de transcription ?
- Peut-on définir des descripteurs musicologiques « de bas niveau », applicables à des données musicales hétérogènes et, si oui, quelle est la pertinence de ces descripteurs pour une étude de répertoires ou de pièces individuels ?
- Quelles sont les stratégies possibles pour concilier des catégories « situées » (associées à des répertoires, des questionnements, des pratiques), et des catégories générales qui se prêtent à la comparaison des répertoires et au travail collaboratif ?

EMV



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A

Abstracts

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Keynote ①
Wednesday March 29, 11:30

Daniel K. L. Chua
University of Hong Kong, China

Epistemological Musings: An Object Lesson in Changing the Subject

Taking the keywords of the conference – epistemologies, methods, disciplines, and cultures – as co-ordinates, this paper maps a personal journey across the terrain of absolute music from the subject of music theory to its object.

Keynote ②
Wednesday March 29, 18:30

Ariane Jeßulat
Universität der Künste Berlin, Germany

**The Language of the Conquerors: Music Theoretical Standards
as Colonial Mimicry**

How does colonial mimicry manifest itself as a musical structure? Is there evidence of distortion with mimetic intent corresponding to what Homi K. Bhabha calls “mimicry”, a form of distortion of “original” designs? In *The Location of Culture* (1994), Bhabha suggests that the colonial gaze not only compromises and distorts the culture of the colonized but also ambivalently splits the foundations of its own culture with disciplinary intent (Bhabha, 122-123), using its normative energy in specific ways to “form” the colonized subjects.

In his chamber opera *Mare nostrum* (1975), Mauricio Kagel has the colonizer recite music-theoretical concepts in a hybrid, archaic counterpoint during an ironic “exorcism.” Is this just the composer’s intuition, or can we see a link between colonial mimicry and reinforced normativity in musical style, particularly regarding gestures of “othering”?

The keynote takes up scenes of aping, discriminating, and exoticizing in tonal music. The initial hypothesis is the presence of what Bhabha calls a “forked tongue” (1994, 121) – i.e. an alienated musical idiom that is increasingly working with repetitions, exaggerations, and traces of normative sets of rules and thus falsifies itself as a free artistic expression – which is mirrored in a musical structure corresponding to colonial mimicry.

The strong ties between mimicry and normativity lead to the following epistemological question: to what extent do music-theoretical norms and conceptualizations, similar to the notion of “defensive discourse” coined by Fred Maus, carry traces of a “coagulated” colonial mimicry and reproduce them in musical analysis?

Keynote ③
Thursday March 30, 12:15

Nicolas Meeùs
Sorbonne Université, IReMus, France

Music writing and analysis

Music analysis usually starts with writing, namely a visual representation (transcription, notation, rewriting, ciphering, schema, graph, etc.) that transforms the auditory perception into a reading. Writing objectifies the music and forces to break from its representation as an activity, to become aware of music as a reality distinct from the usage one makes of it (Benveniste 2012/2019, 93). Further, writing has the power to “structure” the music, “to displace, assemble, combine, [and] fit together” its elements (Barthes 1970/1977, 153).

The term “writing” (as opposed to “notation”), inspired by the title of Charles Seeger’s well-known article “Prescriptive and Descriptive Music-Writing” (1958), emphasizes the fact that visual representations may take different forms. Bruno Nettl (2005, 78) suggests that “The distinction between prescriptive and descriptive notation was Seeger’s terminology for music for performance versus analysis.” But this confuses analysis with a mere description. Seeger’s prescriptive writing is more analytic than his descriptive one. Analysis reveals aspects of the music inaudible at first hearing and, thus, inaccessible by description, whereas analytic representation, not aiming at a complete description, only concerns certain aspects that Leonard Meyer (1998) describes as “syntactic parameters.”

Analysis based on visual representation is primarily associated with written Western music. However, several other presentations at EMA-2023 and its satellite events testify to the importance of transcriptions in the analysis of oral musical traditions. Two points must be stressed. First, it would seem that written music is in greater need of analysis than non-written music due to its two phases (composition and performance) that oblige the composer to replace expressive elements with formal ones. Second, should analysis entail the description of expressive elements, notably in the case of non-written music, then it will likely need to embrace a more descriptive kind of writing, closer to an acoustic description, in order to account for details regarding intonation, non-proportional rhythms, timbre, etc. This shift could change the very definition of music analysis.

Keynote ④
Friday March 31, 12:15**Thomas Christensen**
University of Chicago, USA**Epistemologies of Music Theory: Yesterday and Beyond**

The capacious scope of our conference as envisioned in our call for papers may seem as audacious as it is futile. All the many anxious questions and paradoxes that have been proposed concerning the fraught epistemological basis of music analysis as practiced today can hardly be expected to be resolved over the three short days of our meeting. Of course, no one has suggested that such a resolution is — or possibly could be — the goal of this conference. On the contrary, I would suggest that the entire intellectual enterprise of music theory has historically contained within itself epistemological dilemmas and tensions, elements of its own self-negation to express this dialectically. In my keynote address, I would like to offer a rapid overview of selected historical moments of music theory on a global scale that illustrate this organic complexity. The many inter-related binaries that will be addressed by many of our speakers here — the universal and the particular; theory/practice; whole/part; ratio/sensus; emic/etic, etc. — may perhaps be seen from a global perspective to constitute less intractable barriers that need to be conquered than they are the very basis upon which musical knowledge may emerge.

Session 1

Analysis and Musicology

Chair: Daniel K. L. Chua
University of Hong Kong, Hong Kong

1.1. Anna Yu Wang
Harvard University, USA

Knowing Texture through Sociality

Social relationships constitute a favourite metaphor for analysts of musical texture (De Souza 2020). But do we bear in mind that there are many versions of sociality, each ringing true to a particular milieu? This paper illustrates the role of epistemology in global music theory and analysis through a case study on an ensemble practice known as 合奏 *hezou*. Translated as “together playing,” this Taiwanese 歌仔戲 *kua-a* opera texture is bound up in indigenous knowledge of what “togetherness” signifies and its sonic implications.

In *hezou*, a single melody blooms into a constellation of simultaneously sounding temporal and tonal variations. Each ensemble member is inspired by the same archetypal melody, but outputs a unique, florid melodic line that is idiomatic to their instrument. This intricate layering of melodic similitudes and differences frequently yields to unprepared and unresolved harmonic seconds between instrument parts, thwarting mainstream analytical paradigms of ensembleship. Drawing on ethnographic fieldwork and local written discourse, I analyze how *hezou* underwrites a model of social cohesion in which discordance represents not undesirable chaos, but a hallmark of diverse, independent agents agreeing to share their space. In particular, *hezou* is said to express a 熱鬧 *renao* “hot and noisy” dynamic — an idealized social state in which the line between self and other becomes blurred. I examine what music theoretical, aesthetic, and philosophical insights are to be gained when texture is analyzed through this particular mode of knowing of sociality. The talk concludes with a brief

consideration of how sameness and difference, beyond supplying textural richness in *kua-a* opera, might be a productive methodological anchor for music theory and analysis in a global context.

1.2. Jakob Uhlig
Philipps-Universität Marburg, Germany

**Analyzing Musical Analysis: A Case Study of the Reception
of Chromatic Completion in the Works of Fritz Heinrich Klein
and Nicolas Obouhow**

Although musical analysis often suggests a more or less objective judgment of works through various theoretical models, in reality the outcome of an analytical consideration is highly dependent on which method is applied to a composition and how its outcome is interpreted by the analyst. Moreover, musical analyses can also serve as a basis with which the analysts can lend a more objective-seeming foundation to personal interests and thus serve the pursuit of specific agendas. Musical analyses reveal themselves to be the expression of a highly individual subjectivity, which presents musicology with a dilemma: On the one hand, the recognition of one's own subjectivity is a basic prerequisite for every analyst to conduct a concise analysis of a work; on the other hand, musical analyses must constantly justify their actual epistemological value. The lecture discusses how musicology can make use of this subjectivity in order to turn musical analyses into insightful objects of investigation. The works and writings of the Russian-French composer Nicolas Obouhow and the Austrian Alban Berg student Fritz Heinrich Klein will be used as case studies. Although both composers could hardly be more different in their aesthetic ideas, both analyses by the artists themselves and observations by third parties reveal a tendency to equate the two repertoires. The reason for this is to be found in the use of chromatic completion in the work of both composers, which has been interpreted as a central symbol of artistic innovation, especially – but not only – through the influence of Arnold Schoenberg's twelve-tone music. This observation reveals the potential that musical analyses hold for insights, apart from concrete works, about the analysts and the *zeitgeist* in which they operate. Conversely, this reveals the necessity of constantly taking these factors into account in the interpretation and contextualization of musical analyses.

1.3. Adrien Malemprez Université de Liège, Belgium

L'exotisme musical cinématographique : méthodes d'analyse et problématiques

Musical Exoticism in Cinema: Analysis Methods and Issues

Les compositeurs de musiques de films façonnent des pistes audio dont l'essence est d'accompagner des séquences vidéo. Certaines d'entre elles prennent pour objectif de renforcer l'immersion du spectateur-auditeur dans une ambiance « exotique », c'est-à-dire une ambiance « qui (dans la perception occidentale) est perçue comme étrange et lointaine et stimule l'imagination » (*Le Robert*). Si la musicologie s'est intéressée aux compositions exotiques des Orientalistes des ^{xix}^e et ^{xx}^e siècles (Jean-Pierre Bartoli, Yves Defrance, Ralph P. Locke, Derek B. Scott, etc.), elle néglige encore celles des compositeurs de musiques de films, bien que certains chercheurs aient abordé le sujet (Nasser Al-Taei, Ilario Meandri). À l'heure où les *blockbusters* hollywoodiens touchent des millions de personnes à travers le monde chaque jour, il apparaît pertinent d'analyser les procédés compositionnels que les équipes responsables de la création de leurs bandes originales emploient pour évoquer une culture étrangère aux Occidentaux. Ces procédés compositionnels participent à la représentation musicale que se font les spectateurs-auditeurs des cultures concernées.

Le musicologue qui procède à une telle analyse peut-il se contenter d'emprunter

Film music composers create audio tracks whose essence is to accompany video sequences. Some of them are intended to enhance the immersion of the viewer-listener in an "exotic" atmosphere, i.e. an atmosphere "which (in Western perception) is perceived as strange and distant and stimulates the imagination" (*Le Robert*). While musicology has been interested in the exotic compositions of 19th and 20th century Orientalists (Jean-Pierre Bartoli, Yves Defrance, Ralph P. Locke, Derek B. Scott, etc.), it still neglects those of film music composers, although some researchers have tackled the subject (Nasser Al-Taei, Ilario Meandri). At a time when Hollywood blockbusters reach millions of people around the world every day, it seems relevant to analyse the compositional processes that the teams responsible for creating their soundtracks employ to evoke a culture that is foreign to Westerners. These compositional processes contribute to the musical representation of the cultures concerned by the audience.

Can the musicologist who carries out such an analysis simply borrow the methods

les méthodes précédemment utilisées pour analyser les créations orientalistes des ^{xix}^e et ^{xx}^e siècles ? Il ne peut ignorer certaines notions telles que, par exemple, celles de « signaux musicaux », d'« emprunt adapté » ou de « re-création pseudo-authentique » exposées par Jean-Pierre Bartoli (1997). Elles apparaissent indispensables à la bonne compréhension des procédés compositionnels de cet exotisme musical cinématographique qui, en réalité, présente de nombreux points communs avec celui des Orientalistes. Néanmoins, le musicologue ne doit pas négliger la relation qu'entretiennent l'image et la musique. Il peut s'appuyer sur les méthodes présentées par les spécialistes de la musique de film (Jérôme Rossi, Cécile Carayol, Stephen C. Meyer, Michel Chion, etc.) pour une analyse pertinente de cet aspect propre aux musiques d'écran. En définitive, le musicologue semble contraint d'élaborer une méthode unique qui résulte de la conjugaison de multiples méthodes. Peut-il outrepasser cette contrainte ?

Adrien Malemprez aborde la question à travers l'exemple de l'analyse des procédés compositionnels de représentation et d'évocation du monde arabe dans la musique de film hollywoodienne. Dans le cadre de sa recherche doctorale, intitulée *Représentation et évocation du monde arabe dans l'exotisme musical contemporain : examen et développement des processus compositionnels*, il met au jour une méthode personnelle et adaptée à son objet d'étude.

previously used to analyse Orientalist creations of the 19th and 20th centuries? He cannot ignore certain notions such as, for example, those of “musical signals”, “adapted borrowing” or “pseudo-authentic re-creation” as outlined by Jean-Pierre Bartoli (Bartoli 1997). They appear to be indispensable for a proper understanding of the compositional processes of this cinematographic musical exoticism, which in fact has many points in common with that of the Orientalists. Nevertheless, the musicologist must not neglect the relationship between image and music. He can rely on the methods presented by film music specialists (Jérôme Rossi, Cécile Carayol, Stephen C. Meyer, Michel Chion, etc.) for a pertinent analysis of this aspect specific to screen music. In the end, the musicologist seems to be forced to develop a single method that results from the combination of multiple methods. Can he overcome this constraint? Adrien Malemprez addresses this question through the example of the analysis of compositional processes of representation and evocation of the Arab world in Hollywood film music. In the context of his doctoral research, entitled *Representation and evocation of the Arab world in contemporary musical exoticism: examination and development of compositional processes*, he reveals a personal method adapted to his object of study.

1.4. Lennart Ritz

Georg-August-Universität Göttingen, Germany

Sonic Traces: Analysis and Sound Recordings in Comparative Musicology

In my presentation I will deal with the history of music analysis in comparative musicology. With establishing the Berlin Phonogram-Archive and processing their wax cylinder recordings from all over the world, a group of researchers around Erich Moritz v. Hornbostel, Georg Herzog, Mieczyslaw Kolinski and others institutionalized the academic engagement with the musics of the world under the brand of “comparative musicology” in beginning of the 20th century in Germany. The analytical practices of Hornbostel *et al.* follow a positivistic and universalistic approach in line with contemporary evolutionary paradigms of anthropology, as they focused on transcriptions, tonal and frequency measurements, and large-scale comparisons of archived phonograph recordings. I will argue that with those practices of recording, archiving, dissecting, and comparing, recorded sound was utilized as sonic trace against the backdrop of Ginzburgian conjectural paradigm (Ginzburg 1989). In accord with medical semiotics the engagement with sound recordings as sonic traces enabled comparative musicology to establish specific listening practices as “privileged technique[s] of empirical examination” that made the “truth” about the musics of the world “audible” (Sterne 2003, p. 122) while the colonial entanglements of these recordings as well as their local ontologies were overlooked or ignored. I will introduce and discuss those practices in detail in regard to the following questions: What can we learn from revisiting those scientific practices regarding current analytical and archival practices in ethnomusicology? What taken for granted epistemologies of recorded sound are still at play these days?

1.5. Nidaa Abou Mrad
Antonine University, Lebanon

**Generative Grammar, Semiosis and Emotional Neurocognitive
Evaluation of Musical Enunciation Relating to Modality**

Modal semiotics (Abou Mrad 2016) offers a formal description of the traditional musical elaboration of modal monodies in the form of a musical generative grammar that articulates a melodic and metric phonological component with a rhythmic-melodic morphological component, a modal syntactic component and a semiotic component. It is based on a limited number of rules for rewriting and transforming the monody from the underlying categorization of the melodic data of the mode, which is combined with the rhythmic, stylistic and formal data to finalize the monodic surface and produce musical meanings. While relying on regional grammatical approaches (Arabic modal arborescence and Eastern Roman *phthora*), this theory calls upon Schenkerian analysis, Chomskyan grammar and Meeùsian harmonic vectors and questions neuroscience about the perceptual substrate of semiosis. Based on this theory, this communication focuses on the notion of musical grammaticality producing meaning. It is about this introversive semiosis (Jakobson 1971; Meeùs 2021), this content of the work that develops organically from within (Schenker 1912; Meeùs 2016). Modal semiotics bases this semiosis on the semantic modalities inferred from the underlying modal structures (Meyer 1956), while considering the modal ethos, this emotional coloring that ancient and medieval writings and recent neurocognitive studies relate to scalar and polar modality (Abou Mrad *et al.* 2021). As for referential extroversive semiosis, modal semiotics associates it with the temporal and rhythmical parameter, as in stylistic topics, and with intensity and timbre. This communication is based on this epistemic bias to propose a general and global musicological approach to music analysis, which observes parametrised cultural traits within a musical grammar close to this universal grammar described by Noam Chomsky (1981) in terms of principles and parameters.

Session 2

Analysis, its Methods and Discourse

Chair: Nicolas Meeùs
Sorbonne Université, IReMus, France

2.1. Riccardo Castagnetti
University of Modena-Reggio Emilia, Italy
Harvard University, USA

Between Example and Exemplar: 18th-Century Music Analysis in Giambattista Martini and Giuseppe Paolucci

Argumentation by example plays a key role within the epistemic practices involved in the developing and teaching of music analysis as a discipline. Example-based arguments of inductive type presuppose the existence of certain regularities and seek to categorize a structure, or generalize a rule, drawing on a set of particular cases. Examples can also be used as concrete instances of already established abstract principles and norms. The cognitive power of examples lies at the foundations of analogical reasoning and allow to recognize similarities and connections previously unnoticed or outside established systems of classification.

This paper aims to examine the epistemological relevance of the argumentation by example in two musical treatises published in Italy in the second half of the 18th century: the *Arte pratica di contrappunto* (3 vols., Venice 1765, 1766 and 1772) by Giuseppe Paolucci (1726-1776) and the *Esemplare o sia saggio fondamentale pratico di contrappunto* (2 vols., Bologna 1774 and 1775-1776) by Giambattista Martini (1706-1784). These publications are deeply connected with Martini's teaching method and share the same structure. Paolucci's and Martini's volumes are collections of compositions from the 16th to 18th century thoroughly analyzed and commented: each piece is examined bar by bar addressing compositional theory issues, with constant reference to music theory

literature, and accompanied by remarks about history, style, and performance. The purpose of the analysis is theoretical and pedagogical: to understand, from the observation of individual and concrete cases, the meaning of practices and rules and, through comparison, to acquire the ability to transfer the knowledge to different situations. The exemplification tool is meant as a creative activity. The two treatises also show some significant differences regarding the relationship between music theory, analysis, and history. Through a comparative survey of the two treatises and the investigation of the correspondence between the two authors preserved in the Museo Internazionale e Biblioteca della Musica in Bologna, this paper unfolds crucial issues of music analysis in the 18th century that are still relevant for today's analytical discourse.

2.2. Philippe Lalitte

Sorbonne Université, IReMus, France

Les outils audionumériques d'analyse du son et de la musique dans le cadre de l'analyse d'interprétations enregistrées : objectifs, méthodes et limitations

Digital Audio Tools for Sound and Music Analysis in the Field of Recorded Musical Interpretations Analysis: Objectives, Methods, and Limitations

De nombreux outils audionumériques d'analyse du son et de la musique sont aujourd'hui disponibles pour analyser les enregistrements dans le cadre de l'analyse musicologique. Parmi ceux-ci, on dispose d'outils qui permettent une écoute « augmentée », d'outils de visualisation et d'annotation du signal audio (forme d'onde, différents types de sonagrammes, coefficients d'énergie dans les bandes critiques, matrice de similarité, etc.), d'outils d'extraction de données acoustiques, nommés « descripteurs audio » (RMS,

Numerous digital audio tools for sound and music analysis are available today to analyze recordings in the context of musicological analysis. Among them, we find tools for “augmented” listening, tools for visualizing and annotating the audio signal (waveform, different types of sonograms, energy coefficients in critical bands, similarity matrix, etc.), tools for extracting acoustic data, called “audio features” (RMS, loudness, brightness, spectral roll-off,

loudness, brightness, spectral roll-off, spectral centroid, noisiness, attack time, chromagramme, courbe de nouveauté, etc.) et d'outils qui offrent la possibilité de transformer et de déconstruire certains paramètres sonores (séparation des sources ou des canaux, ralentissement/accélération, filtrage, modification de la hauteur, du rythme et de la dynamique, segmentation et réordonnancement, etc.). Cette intervention a pour objectif de mener une réflexion épistémologique sur l'utilisation de ces outils dans le cadre de l'analyse d'interprétations enregistrées (Cook *et al.*, 2009; Fabian, 2015; Lalitte, 2015; Nattiez, 2013; Rink, 2002). Il s'agira de présenter, à travers quelques exemples tirés de la littérature analytique, les objectifs, les possibilités et les limitations des trois principales approches méthodologiques actuelles: performativiste, comparativiste et structuraliste.

spectral centroid, noisiness, attack time, chromagram, novelty curve, etc.) and tools that offer the possibility of transforming and deconstructing some sound parameters (source or channel separation, slowing down/accelerating the playback speed, filtering, modification of pitch, rhythm and dynamics, segmentation and reordering, etc.). This talk aims to conduct an epistemological reflection on the use of these tools in the analysis of recorded musical performances (Cook *et al.* 2009; Fabian 2015; Lalitte 2015; Nattiez 2013; Rink 2002). We will present, through a few examples from the analytical literature, the aims, possibilities, and limitations of the three main current methodological approaches: performativist, comparativist, and structuralist.

2.3. Pierre Couprie

Université Paris-Saclay, Centre d'Histoire Culturelles
des Sociétés Contemporaines, France

Les modes d'existence des objets numériques en analyse musicale : vers une musicologie contextuelle

The Digital Objects' Modes of Existence in Musical Analysis: Towards a Context-Based Musicology

Penser l'objet numérique dans l'analyse musicale s'apparente à une révolution épistémologique que la musicologie ne fait

Thinking the digital object in musical analysis is an epistemological revolution that musicology has only just

qu'entrevoir (Couprie, 2020). L'analyste utilise le numérique à travers des données ou des enregistrements déjà traduit en représentations. Or ces représentations résultent d'un processus de fabrication et d'interprétation contextualisé à l'analyste et aux technologies.

Notre proposition s'inscrit dans un double héritage. Tout d'abord celui du mode d'existence des objets techniques (Souriau, 1943 ; Simondon, 1958 ; Latour, 2012) qui met en évidence l'interaction existante entre l'humain et l'objet technique, ce dernier n'étant pas extérieur au premier, mais constitutif de sa pensée. Ensuite celui mettant en évidence la différence entre les données et leurs traductions en représentations que nous manipulons derrière nos interfaces (Bachimont, 2007).

Nous avons appliqué ce double héritage sur des œuvres échappant aux théories musicales, résistantes aux analyses par leur état de performance, leur nature expérimentale et leur complexité sonore et musicale. Ces œuvres expérimentales – des musiques contemporaines aux musiques actuelles – ne se réduisent plus à une partition, un enregistrement ou même un ensemble d'interactions sociales et ne s'inscrivent pas non plus dans une théorie ou une théorisation. Le musicologue se trouve alors dépourvu d'outils et de méthodes, c'est la raison pour laquelle nous avons patiemment développé les nôtres permettant de visualiser les indices de fabrication, de

begun to foresee (Couprie 2020). Analysts use the digital through data or recordings already translated into representations. But these representations result from a process of production and interpretation that is contextualized in the analyst and technologies.

Our proposal is part of a double heritage. First of all, the technical objects' mode of existence (Souriau 1943; Simondon 1958; Latour 2012) which highlights the existing interaction between the human and the technical object. The technical object not being external to the first one, but constitutive of its thought. The other one highlights the difference between data and their translation into representations that we manipulate behind our interfaces (Bachimont 2007).

We applied this dual heritage to works that escape musical theories, resisting analysis by their condition of performance, their experimental nature and their sonic and musical complexity. These experimental works – from contemporary music to popular music – are no longer reduced to a score, a recording or even a network of social interactions, nor are they part of a theory or a theorization. The musicologist is then deprived of tools and methods, which is why we have patiently developed our own, allowing us to visualize fabrication indices, linking

relier gestes et perceptions, d'étudier les micro-textures sonores, de déduire des formes hétérarchiques ou génératives, de mettre en évidence les dialogues entre l'humain et la machine, des phénomènes de co-créativité ou d'analyser les instruments construits, voire bricolés, dans de nombreuses pratiques expérimentales. Progressivement, il s'est avéré que la part la plus importante de la production musicale actuelle – qu'elle relève des musiques actuelles, de la création contemporaine ou de productions aux marges de la musique comme les arts sonores – utilise la technologie et échappe aux modes de production et de théorisation de la tradition occidentale. Existe-t-il une pratique de l'analyse musicale non empreinte de technologie ? De l'étude de partitions à celle des performances improvisées, l'œuvre ou sa manifestation n'est étudiée qu'à travers des objets souvent numériques (ou des traces d'objets numériques) contextualisés. Or ces objets, ces représentations – traductions des données numériques – s'inscrivent dans un contexte de production et d'analyse. L'objet de cette communication sera de définir comment ces objets numériques construisent nos analyses musicales dans une pratique contextualisée de la musicologie.

gestures and perceptions, studying sonic micro-textures, deducing heterarchic or generative forms, highlighting interactions between human and machine, co-creativity phenomena or analyzing constructed or even DIY instruments in many experimental practices. Progressively, it has become clear that the most important part of current musical production – whether it is in the field of popular music, contemporary music or productions on the margins of music such as sound arts – uses technologies and escapes the modes of production and theorization of the Western tradition.

Is there a practice of musical analysis that is not affected by technology? From the study of scores to improvised performances, the work or its expression is only studied through contextualized, often digital objects (or traces of digital objects). But these objects, these representations – translations of digital data – are situated in a context of production and analysis. The aim of this lecture is to define how these digital objects constitute our musical analyses in a contextualized practice of musicology.

2.4. Pablo Gómez Ábalos

Universidad de La Rioja, Escuela Superior de Música
de Alto Rendimiento, Spain

Corporeal Music: A Theory of Three-Dimensional Analysis under the Concepts of Expressive Complex (EC) and Emotional Form (EF)

Corporeal experience is an unavoidable part of the musical object and determines our musical cognition. In this paper I propose a theory of musical analysis, which is a product of the reflection on emergent body-mind elements linked in the creative process of a musical artifact. This method reveals corpographic forms present in performing compositions and composing for performance, under the concepts of Expressive Complex (EC) and Emotional Form (EF) (Gómez Ábalos 2016). Research on musical gesture and musical tempo experience has allowed me to explore how the process of meaning and musical experience occurs. The amplitude of the concept of musical gesture offers a three-dimensional image of the musical score. In my proposal, subject matters of musicology and organology are intertwined with biomechanics, theories of perception and neuroscience in music. My analysis theory is based on three paradigms of meaning: metaphorical, physical, and experiential, which are projected in each musical object getting feedback each other and generating a continuous flow of effort-trajectories and “visceral dynamic thought” (drawing on the theories of Laban, Cox and Zbikowski). The concept of EC, which is the core of my analysis, develops the notion of “gestural coarticulation” of Godøy (2011) and the “expressive pattern” of Rink (2011). The EC assembles gestures through effort-trajectories coarticulated at three different levels (gesture-groups, gesture-trajectories, and effort-emotion). The EF concept embodies the way to manage EC by timing. This analytical approach becomes a useful tool for performing practice, as well as for teaching and musicological research.

2.5. Lee Cannon-Brown Harvard University, USA

Analysis, Materialism, and Speculation

Much music analysis of the past decade has taken a material turn. Jonathan De Souza's transformational approach has peered outside the imaginary of the musical score, for instance, to model the bodily movements of musicians on their material instruments. Meanwhile, the Latourian approaches of Jennifer Iverson, Brian Kane, and Eric Drott have described dense social networks, tracing how composers, technicians, performers, listeners, and objects have interacted in music's material production. All such analysts have shared an interest in situating music's abstractions within a concrete, physical world.

Yet for all their physicality, new materialist approaches often carry with them an all-too-human psychological remainder. De Souza's theory centers human performers, for instance, and theories of genre depend on the subjectivities that give them meaning. What if materialist music analysis were to attempt new approaches that would cast off these attachments to the human? What if analysis started from the radical recognition that, as Daniel Chua and Alexander Rehding recently put it, music "predates homosapiens and will outlive the species?"

In my paper, I pursue just such a wide, parahuman frame for materialist music analysis, not out of a desire to discredit approaches that center the human subject, but to reopen, in our post-truth age, some of the discipline's most ambitious speculative questions. First, I examine enduring affinities in contemporary analysis with anthropocentrism, drawing in my critique on the philosopher Quentin Meillassoux. Then I look for non-anthropocentric alternatives, both in music theory's pre-Kantian past and in its present. If contemporary approaches to analysis are to supplement their *musica humana* with a truly ambitious *musica speculativa*, I argue, they will have to rescue realist thought from the slumber of dogmatism; they will have to think beyond the human, while also affirming the difference that humanist thought has rightly come to prize.

Session 3

Analysis According to Cultures

Chair: Ariane Jeßulat
Universität der Künste Berlin, Germany

3.1. Bassirima Kone
Université Félix Houphouët-Boigny, Ivory Coast

Problématiques identitaire, fonctionnelle et analytique des musiques africaines du *Bêré* au *Coupé-Décalé*

**Identity, Functional and Analytical Issues of African Musics
from *Bêré* to *Coupé-Décalé***

Les musiques africaines souffrent de plusieurs maux qui englobent aussi bien les problématiques identitaires, leur statut, leurs fonctions ainsi que d'autres types de difficultés liées à leur transcription. Selon que ces musiques soient issues de la tradition, qu'elles soient produites en milieu urbain ou en tout autre lieu, leurs caractères divergent de même que leurs objets et, par conséquent, les approches nécessaires à leur étude sont perpétuellement remises en cause. Alors que certaines de ces musiques croulent sous le poids de l'Omerta, d'autres, devenues hybrides du fait de l'acculturation, peinent à se situer dans un genre, rendant difficile le choix d'une méthode ou d'une théorie pour les appréhender

African musics suffer from several ills that include identity issues, their status, their functions as well as other types of difficulties related to their transcription. Depending on whether these musics come from the tradition, whether there are produced in an urban environment or in any other place, their characters diverge as well as their objects and, consequently, the approaches necessary for their study are constantly challenged. While some of these musics are drowning under the weight of Omerta, others, which have become hybrids due to acculturation, struggle to situate themselves in a genre, making it difficult to choose a method or a theory for apprehend or to analyze them. The

ou pour les analyser. La réflexion qu'impose l'étude de ces musiques exige de tenir compte, en premier, de leur identité, de leur condition de création et d'usage avant d'amorcer toute forme d'analyse. Cette communication, en s'appuyant sur l'étude comparée de deux types particuliers de musique, l'une issue de la tradition (le *Bêrê*) et l'autre du milieu urbain (le *Coupé-Décalé*), s'interroge sur la méthode adéquate à l'analyse de celles-ci et, *in extenso*, des musiques africaines.

reflection imposed by the study of these musics requires that we first take into account their identity, as well as their condition of creation and use, before initiating any form of analysis. This communication, based on the comparative study of two particular types of music, one from the tradition (the *Bêrê*) and the other from the urban environment (the *Coupé-Décalé*), questions the appropriate method for analysing these and, *in extenso*, African music.

3.2. Sylvie Le Bomin Sorbonne Université, IReMus, France

To the Roots of Gabonese Musical Heritage

Music is one of the major traits that is part of our cultural identity. Nothing is known about the mechanisms of its transmission and evolution in a non written context, even though this certainly corresponds to the major part of its evolution. Here we focus on orally transmitted music in a large set of populations from Africa. Musical systematics and categorization were used to develop a method for coding musical characters based on the analysis of the transcriptions of 200 songs from gabonese populations known for their rich cultural diversity. Applying a phylogenetic approach to this material, we can accurately represent the diversity of central African music. The high consistency of trees showed that vertical transmission plays a key role in shaping musical diversity and particularly for internal musical characters. Contrary to what was expected, our work reveals a strong congruence between musical character transmission and rules of descent: musical data clearly cluster populations in two groups, matrilinear versus patrilinear. Thus, we demonstrate that kinship system constrains musical evolution beyond geographical factors and beyond other cultural factors such as ethnicity (*sensu* Barth 1969), language, or life style.

3.3. Holy Razafindrazaka

Académie Nationale des Arts et de la Culture, Madagascar

L'analyse selon les cultures, cas de Madagascar

Analysis According to Cultures, the Case of Madagascar

Malgré le grand nombre d'études des observateurs et des spécialistes sur la musique malagasy, la catégorisation réalisée dans le cadre ethnomusicologique s'avère insuffisante pour déterminer l'identité culturelle musicale de Madagascar. Les recherches récentes à finalité pédagogique ont permis d'adjoindre à la musicologie analytique les théories déjà existantes, tant sur le rythme, la modalité que sur l'harmonisation, des théories auxquelles s'ajoute l'exploration des spécificités musicales et instrumentales constituant tout un système. Puisque la question du rythme a été résolue par Arom, l'analyse mélodique et celle de la modalité empruntent à la fois la théorie schenkerienne, la systématique modale (Beyhom) et les éléments de sémiotique modale (Abou Mrad) en passant par la structure du chant grégorien. Enfin, le tempérament de l'instrument est un détail à ne pas négliger car ce dernier fait partie de l'esthétique musicale spécifique d'une région et d'une période données. Ces démarches prouvent ainsi que d'autres théories contribuent effectivement à la compréhension du vaste répertoire musical malagasy collecté depuis le XVIII^e siècle jusqu'à nos jours. Quelques exemples issus des travaux de recherche illustreront la présentation.

Despite the large number of studies conducted on Malagasy music by observers and specialists, the classification performed within the ethnomusicological framework is not enough to determine the musical cultural identity of Madagascar. Recent research carried out for pedagogical purposes has helped adding existing theories to the analytical musicology, whether on rhythm, modality or harmonization, theories to which are also added the exploration of musical and instrumental specificities making a whole system. The question of rhythm has been resolved by Arom, and melodic analysis, such as that of modality, borrows from both Schenkerian theory and modal systematics (Beyhom) and elements of modal semiotics (Abou Mrad) as well as the structure of Gregorian chant. Finally, it is important to take into account the temperament of the instrument forming the musical aesthetic. These processes prove that other theories need to be established in order to identify the vast Malagasy musical repertoire collected from the 18th century to the present day.

3.4. Martin Scherzinger New York University, USA

Meter, Africanized

This paper examines the way precolonial African musics – ranging from pre-colonial *matepe* music from the Korekore region in northern Zimbabwe and *amadinda* music from the Kampala region in southern Uganda from the era before the destruction of the Lubiri Court – pose a challenge to, if not conceptually invert, the Newtonian-inflected European relation of rhythm and meter. Newton's theory of time – grounded in force and geometry – proffered an abstract measure for locating and coordinating events. Matrices for framing musical time were theorized along similar lines; and, along with pitch templates, instruments, devices, etc., were standardized and scaled. Key technological artefacts for keeping time in music emerged throughout this period – Winkel's musical chronometer of 1814, Maelzel's newly-patented metronome of 1816. Likewise, music's metric division was re-theorized as a kind of undifferentiated flow of absolute time ["Zeit"], intercalated by an isochronous circular time that was subdivided by accentuations grouped in two, three, and four beats ["Tackte"] (Kimberger).

In contrast to the Euro-industrial conception of it, consolidated in the modern Enlightenment era, "melo-rhythmic" (Nzewi, Omojola) entities in Bugandan *amadinda* and *embaire* music, as well as *matepe* and *mbira* of Zimbabwe, often remain stable, while metric schemes are meticulously rotated. In these precolonial musical forms, furthermore meter itself is mostly crafted as an algorithmic transformation of a rhythmic interaction. This paper describes the systems that undergird their performance practices, demonstrating, 1. how interlocking polyrhythmic parts elicit beat entrainment patterns set adrift of the embodied movements of performers; and 2. how procedures for pitch transposition rotate distinct metric schemes, effectively recouping a kind of melo-rhythmic identity under various transformations. Instead of relativizing Euro-industrial practices of meter (and its attendant rhythm-concept), my talk hopes to Africanize those metric practices that go as universal; and thereby to decenter Eurogenetic legacies of musical time.

3.5. Chae-Lin Kim**Universität der Künste Berlin, Germany****What is the Proper Way to Analyze Signed Music?
Music in Deaf Culture**

In Deaf culture, Music is roughly understood in a twofold manner: First, hearing music that Deaf people (The word "Deaf" with upper case "D" refers to deaf people who see themselves as a linguistic and cultural minority and as members of Deaf community) can perceive through tactile senses or with the help of hearing aids. Second, art forms of sign language that are considered as visual music or eye music in Deaf community. To the latter type of "music" belong, for example, sign language poetry and visual vernacular (VV), performed only visually and independently of hearing music. Signs that are used in these art forms show particular rhythmic patterns and various characteristics that make them distinguishable from the signs in everyday use. Because of the fact that Deaf people are living not in an isolated area but come into contact with hearing people/culture, there are also "mixed" art forms like signed raps, signed songs where sign language is used as lyrics, accompanied by hearing (mostly pop or rap) music. Here, some questions arise: What is the proper way to analyze signed music? How does the analysis of signed music, according to Deaf culture, look like? Who is to be the judge in validating this analysis or recognizing the art forms of sign language as "music" at all? In my presentation, I want to look at several attempts to analyze signed music by hearing and Deaf scholars and draw attention to the issue of applying analytical methods that are usually based on hearing music to signed music and also the complexity of this kind of interdisciplinary work where Deaf studies, sign language linguistics, ethnomusicology, music theory are involved.

Session 4

Analysis and Theories

Chair: Thomas Christensen
University of Chicago, USA

4.1. Netta Huebscher
University of Gothenburg, Sweden

Invoking the Modal Nymph: the Emergence and Dissemination of the Concept of Modality in Swedish Folk Music

Since the emergence of a concept of folk music, the study and practice of certain Western European musical traditions has been informed by notions of the music's modality. Specifically, the idea that older or more indigenous layers of traditional repertoires manifest an underlying, pre-tonal structure of their own has been significant in scholarship, musical education, and performance. This paper will present an overview of a recently completed doctoral project whose aim was to shed light on this idea, through the particular case of the conceptualisation of modality in relation to Swedish folk music. By tracing both the early and recent history of the modal discourse about Swedish folk music, the study explores what music-theoretical ideas about folk music have risen in Sweden through various scholarly and editorial endeavours; how these ideas have emerged; and in what shape they have been further disseminated in contemporary research and education. Looking at modality as an open concept, it proposes that the concept of modality that has been attributed to Swedish folk music concurs with a specific type of romanticist, neo-modal construction, in which scale-degree theory gives rise to dichotomous, evolutionist and organological definitions of mode as a marker of "musical otherness". The study further explores the emergent aspect of this construction, as well as its projective and regulative force on the analysis and assessment of traditional repertoires.

4.2. Corinne Frayssinet Savy IReMus, France

Rythme, silence, mouvement à la croisée épistémologique de l'ethnomusicologie et de l'anthropologie de la danse

Rhythm, Silence, Movement at the Epistemological Crossroads of Ethnomusicology and Dance Anthropology

Le flamenco appelle à penser le pluralisme des rythmes à travers le corps, dansant comme chantant. L'analyse de ses structures temporelles est formalisée par Philippe Donnier (1988, 1996, 1997), puis systématisée par Faustino Núñez (2003, 2011). L'un comme l'autre la centrent essentiellement sur le rôle spécifique de la guitare dans l'architecture du « cycle sonore ». Ils inventorient les structures rythmiques fixes à partir de niveaux, chacun significatifs d'un paramètre caractéristique du chant (mode), de la guitare (déphasage, texture sonore, grille harmonique) ou des percussions corporelles d'accompagnement (pulsation, intensité sonore) (Donnier, 1994). Or, une perception plus souple de ces structures rythmiques est en jeu dans la performance du chanteur exécutant ses propres percussions corporelles comme dans celle du guitariste tant accompagnateur que soliste, et comme dans celle des percussionnistes *palmeros* (Worms, 2021). C'est ce diktat perceptif rigide des cycles rythmiques en 12 temps ou 8 temps, les *compases*, qui s'impose dans un enseignement

Flamenco calls for thinking about the pluralism of rhythms through the body, both dancing and singing. The analysis of its temporal structures was formalised by Philippe Donnier (1988, 1996, 1997), then systematised by Faustino Núñez (2003, 2011). Both focus on the specific role of the guitar in the architecture of the “sound cycle”. They identify fixed rhythmic structures based on levels, each of which is significant for a characteristic parameter of the song (mode), the guitar (phase shift, sound texture, harmonic grid) or the body percussion accompaniment (pulsation, sound intensity) (Donnier, 1994). However, a more flexible perception of these rhythmic structures is at stake in the performance of the singer performing his or her own body percussion as well as in that of the guitarist, both accompanist and soloist, and in that of the *palmeros* percussionists (Worms, 2021). It is this rigid perceptual diktat of rhythmic cycles in 12 beats or 8 beats, the *compases*, that is imposed in flamenco dance instruction or through

de la danse flamenca ou à travers des formes de spectacles telles que le ballet flamenco. À la différence, le mouvement, autrement dit « cette vie du rythme-rythmicité » naît de « l'élasticité du modèle » (Estival et Cler, 1994). Dans le flamenco, il relève notamment d'un bornage accentuel séquentiel incluant un processus de commutation de temps forts, en sus de la grande flexibilité temporelle propre au chant dont se saisissent certains danseurs chorégraphes comme Andrés Marín. Il est réinvesti par le danseur chorégraphe Israel Galván afin d'explorer la grammaire musicale et sonore de chaque paramètre temporel, envisagé au regard des approches de certains théoriciens (Arom, 1985, 2007 ; During, 1996 ; Estival et Cler, 1997 ; Cler, 2010, 2011 ; Picard, 2000, 2005, 2014, 2016). Il est mis à nu depuis dans les diverses propositions du *Solo* (2007) créé par Israel Galván. Il devient une expérience de danse en silence en explorant rythmes et mouvements du corps sonore dansant.

performance forms such as flamenco ballet. In contrast, movement, in other words “this life of rhythm – rhythmicity”, is born from “the elasticity of the model” (Estival and Cler, 1994). In flamenco, it is based on a sequential accentual demarcation including a process of switching between strong beats, in addition to the great temporal flexibility specific to singing, which certain dancers-choreographers such as Andrés Marín seize upon. It is reinvested by the dancer-choreographer Israel Galván in order to explore the musical and sonic grammar of each temporal parameter, considered in relation to the approaches of certain theorists (Arom 1985, 2007; During 1996; Estival and Cler 1997; Cler 2010, 2011; Picard 2000, 2005, 2014, 2016). It has since been exposed in the various proposals of *Solo* (2007) created by Israel Galván. It becomes an experience of dance in silence by exploring the rhythms and movements of the dancing sound body.

4.3. Adam Filaber

McGill University, Canada

Sorbonne Université, IReMus, France

Musical Syntax in the Context of Western Harmonic Theory

The notion of “syntax,” adopted from linguistics, is employed in music research of different methodological orientations and concerning diverse subject matter. Notwithstanding the popularity of the term, it is rarely defined, and its various uses conflict with one another to the point of casting doubt on the possibility of a comprehensive acceptance (Cook 2004). Further, numerous comparisons between language and music (such as Agawu 1999; Lerdahl and Jackendoff 1983; Nattiez 2004) reveal fundamental differences between the two; thus, relying too heavily on a metaphorical description of musical syntax would deprive it of its distinctive qualities. Nevertheless, the analogy can be advantageous under the condition that it serves as a point of departure instead of circumscribing what the notion can encompass with respect to music. Although arriving at an exhaustive meaning of musical syntax may well lie beyond the scope of musicology, a comparative analysis of it and its linguistic counterpart will bring to the fore several factors that could significantly broaden our understanding of the term, particularly within the domain of Western harmonic theory. For instance, while linguistic elements “form a chain,” unfolding “one after another” in the “dimension of time” (Saussure 1916), music exists in both the “plane of succession” and the “plane of simultaneity” (Agawu 1999). This idea, despite having inspired some innovative approaches to construing simultaneous syntactic elements (notably Harrison 1994, 2002, 2016), is commonly undervalued by harmonic theory, which tends to consider the chord as an “indivisible unit” (Dahlhaus 2001). The discussion of unique musical features calls into question the epistemological divide between syntax and other branches of music analysis such as the study of form.

4.4. Sebastian Wedler Utrecht University, Netherlands

Making Worlds of Musical Time: Nelson Goodman, and the Epistemological Divide Between Schenkerian and Neo-Riemannian Theory

The epistemological rift between Schenkerian and neo-Riemannian theory runs deep. Particularly in relation to questions of musical time, this rift has profound hermeneutic implications, as can be glimpsed, for example, through a comparison of David Beach's and Suzannah Clark's interpretations of the opening exposition of Schubert's G major String Quartet D.887. Whereas Beach's Schenkerian reading highlights with reference to the tonic-dominant axis a teleological — "end-accented" — orientation of the musical discourse, effectively attributing to it a sense of "narrative" time as habitually associated with Beethoven's heroic style, Clark's neo-Riemannian perspective discerns in the hexatonic cycling woven into the tonal geometry a fingerprint of Schubert's "lyrical" imagination, a mode of suspended temporality that she considers decisively "non-Beethovenian" (or, indeed, uniquely "Schubertian"). Owing to the specific epistemological calibrations built into each respective theoretical lens, these two interpretations reveal a basic hermeneutic-logical contradiction: (how) is it possible that the same music is teleological and non-teleological at once?

The aim of this paper is to critically reappraise this contradiction. While carrying no real weight in the arena of music analytical plausibility, this contradiction drills down to the bedrock of all modern (post-Gadamerian) hermeneutic philosophy: the cardinal problem that the "truth" produced by a certain "method" is critically shaped by it. Drawing upon Nelson Goodman's concept of "world versions" — a solipsistic-constructivist theory of conceptualising truth claims — this paper explores to what extent opposing interpretations of musical time can be understood as representing different "versions" arising from the multivalent symbol system which makes up the individual work, the "world". Once cast in this light, the epistemological inconsistencies underpinning the hermeneutics of musical time can be reframed as heuristic opportunities, rather than impasses, in the way that they engage us to rethink the normative grounds for claims about musical time without all too conveniently essentialising it.

4.5. Stefano Mengozzi University of Michigan, USA

Theory, Analysis, History

Analysis is indeed “always based on a theory,” but the two endeavors are notably at odds with respect to their ultimate goals: whereas conscious theory deals with ontologies, conceived independently of the flow of time, the purpose of analysis is to offer a verbal account of musical narratives in their temporal succession. Thus, theory and analysis differ fundamentally in their use of language, for while music theory isolates its ontologies by means of verbal concepts that must be precisely set forth and coordinated into overarching systems, what matters to analysis is arguably less the conceptual definition of those ontologies than their experiential impact on listeners, conveyed through a value-laden, emotionally tinged, and often metaphorically inflected rhetoric. For instance, the experience of closure in a particular musical context is bound to be analytically significant quite regardless of the ontological status of its components as recognized by the relevant explicit theory. The concepts we impose on the sounds we hear are not necessarily those imparted by music theory: to the ear, the *finalis* of a Palestrina motet is often indistinguishable from the tonic of a Mozart symphony, even though from a theoretical standpoint finals and tonics are categorically different. Liberated from the ontological trappings of theory, analysis is arguably amenable to becoming a “collaborative, open, and evolving” act — in other words, a truly dialogical and intercultural mode of musical understanding. For analysis may be defined as the act of isolating and sharing sound ontologies (patterns and gestures and their functional relationships in the flow of time) that acquire meaning independently of language. The ontological claims of explicit theory are worth investigating as modes of musical knowledge that reflect the value systems and power dynamics of the cultural contexts that beget them.

Session 5

Analysis vis-à-vis Traces, Data and Musical Repertoires

Chair: Christophe Guillotel-Nothmann
CNRS, IReMus, France

5.1. Ron Cohen
University of Haifa
The Center for Middle Eastern Classical Music Jerusalem, Israel

Formalizing the Unformalized: a Case Study in Hindustani Music Towards a Theory of Voice Leading Assisted by MIR Tools

It has long been understood that phrase construction and melodic motion in Hindustani Music is “so complex and elusive that no scientific model has yet been formulated to codify the rules governing phrasing in *raga-s*” (Rao & Rao 2014). Being an orally transmitted music that is created at the moment of performance and has not been subjected to intense transcribing practices like other improvisational traditions such as jazz, adds to the mystical aura that surrounds the improvisational practices of this ancient and vast musical tradition. However, deep research through analysis and practice-based research into the improvised music of one of India’s greatest musicians, *bansuri* (flute) player Hariprasad Chaurasia, reveals clear, straightforward, and consistent rules that govern note-to-note movement (voice leading) and phrase construction. These melodic behaviors guide the musician in the creation of melodic phrases, sentences and whole musical movements that form the traditionally prescribed development of a *raga* in performance. These behaviors will be presented in a formalized manner and exemplified via live playing on the *bansuri* flute. The *alap* section of an improvisation in *raga Yaman* will be presented as a case study illustrating these rules, followed by a discussion of the use of MIR tools in the validation of this theory via a larger corpus of music.

5.2. Jean-François Goudesenne CNRS, IRHT, France

Analyses apologétiques de quelques chefs-d'œuvre « grégoriens » : quelle résistance face aux données archéo-philologiques d'une genèse par réécritures successives ?

Apologetical Analyses for "Gregorian" Chant Masterworks: Which Compatibility with Archeo-Philological Data and a Genesis Including Successive Rewritings?

Quels musicologues ne se souviennent-ils pas des éloquentes analyses d'un Dom Gajard ou plus récemment de leur renouvellement herméneutique par les compétences théologico-liturgiques d'un François Cassingena? Un « *Puer natus est* » ou un « *Factus est repente* » auront pu jadis s'imposer comme œuvres significatives du patrimoine musical, dignes de figurer au programme pour l'option musique au baccalauréat, érigeant même le pape Grégoire le Grand (590-604) et la *schola cantorum* romaine, en une des premières grandes références compositionnelles d'une arche historique allant jusqu'à l'*Art de la Fugue* et l'*Opus 111*! Or les études comparées des autres traditions musicales liturgiques latines mettent à l'évidence, depuis des décennies, des processus de transmission de répertoires par réécritures successives et d'acculturations à des traditions régionales ou des pratiques antérieures : non seulement, les très étudiés modèles paléo-romains,

The predominant epistemological approach to analyzing plainchant, representative of Dom Gajard and the Solesmes school and extending to the modern hermeneutical approaches of, *inter alia*, the liturgist and singer François Cassingena, is often taken for granted. Standard versions of famous chants such as *Puer natus est* and *Factus est repente* are deemed to be untouchable classics, fit for the French baccalaureate curriculum. There have even been efforts to establish the Roman *schola cantorum* during the reign of Pope Gregory the Great (590-604) as one of the preeminent compositional schools, a historical standard on par with the *Art of Fugue* and *Opus 111*. For decades, however, comparative studies of Gregorian chant and other Latin liturgical musical traditions have been bringing to light new evidence pertaining to the transmission of chant involving successive rewriting, acculturation, and evolutionary divergences between regional traditions. In addition

mais encore les versions ambrosiennes ou mixtes régionales, au carrefour de plusieurs influences (hispaniques, vieil-italiques, gallicanes, etc.), nous permettent de construire des chaînes de transformation d'une pièce musicale au long de l'histoire et des réformes liturgiques : un conflit s'établit alors entre une vision de « composition spontanée » et une conception de l'œuvre par réécritures successives : pour reprendre l'expression de Philippe Bernard, le chant grégorien ne serait qu'un « chant de seconde main » ! L'archéologie des textes met donc à l'épreuve une vision de l'histoire de la musique adossée sur un mythe de centralisation d'un « génie romain », promu par une idéologie romano-centriste, caractéristique des milieux catholiques des ^{xix}^e et ^{xx}^e siècles. Outre l'examen de la pérennité de points d'analyse, se pose une question plus ontologique sur la nature même des pratiques musicales et des compositions afférentes aux répertoires du premier millénaire, dans lesquelles la question de l'écriture et de la codification par des notations, fussent-elles subtiles, sont largement traversées par l'oralité et les techniques mémorielles, qui en font des créations presque aussi ouvertes que certaines œuvres contemporaines aléatoires d'un Boukourechliev.

to the well-known paleo-Roman models, Ambrosian and cross-regional versions of chant (blending Hispanic, Old Italic, Gallican styles, among others) allow us to build “transformation chains” of individual compositions developing through history, transforming with every liturgical reform. The revelations of philology and textual criticism – supporting Philippe Bernard's comment that Gregorian chant is second hand music – are thus at odds with the conservative view that compositions of this genre have one legitimate form, backed by the myth of the “Roman genius” that was promoted by the Romano-centrist ideology of certain influential Catholic circles in the 19th and 20th centuries. Besides determining the sustainability of certain analytical perspectives pertaining to particular compositions, a more general ontological problem must be addressed that questions the very nature of musical practice in the first millennium, in which the factor of codification, even if present to a degree, is often challenged by *artes memoriae* and oral transmission processes, rendering chant comparable to modern aleatoric music, like that of Boukourechliev.

5.3. Richard Freedman
Haverford College, USA

Philippe Vendrix
CNRS, CESR, France

What Can We Teach Machines about Renaissance Counterpoint, and What Can They Teach Us about Analysis?

Citations: The Renaissance Imitation Mass (CRIM; crimproject.org) focuses on an important but neglected tradition: the so-called “Imitation” Mass of the 16th century, in which short sacred or secular pieces were transformed into five-movement cyclic settings of the Ordinary of the Catholic Mass. The sheer scope of the transformation required composers to re-think their models, shifting and extending ideas in new musical contexts. If counterpoint is a craft of combinations, then the Imitation Mass involves the art of recombination on a massive scale.

How can digital tools help us understand the remarkable complexity of this repertory? In part, through controlled vocabularies and structured data. CRIM deploys xml (mei) encoded versions of scores in a platform that permits analysts to annotate them in precise ways; to date an international team has assembled over 2500 ‘relationships’ that detail connections across a corpus of some 50 Masses and models. But with the help of data scientists we have also developed a robust set of Python tools (CRIM Intervals, itself based on music21) that help us analyze these contrapuntal patterns on a scale that is both vast and detailed.

Training this mechanical ear has required that we discipline ourselves: asking questions about our assumptions, and generally formalizing the kinds of domain expertise that often remains undocumented. The results are impressive, even if we sometimes need to be cautious about their accuracy.

The results question several aspects of the analytical work. The first is essential and concerns the process of creating analytical data: what criteria should be adopted to provide a theoretical framework for the analysis produced by a group of researchers? Does the reference come from a contemporary source of the corpus or from a musicological synthesis of our time? How does the process of validating the observations work?

The second is the analysis of the results based on the concept of similarity. On what criteria should similarity and dissimilarity be built? Does this have any effect on the construction of an ontology of the musical work applied to the 16th century corpus at stake?

Finally, the third challenge concerns the practice of collective research. This type of project requires the mobilization of a large number of human resources, preferably from diverse backgrounds. How can individual contributions be valued? How to perpetuate or transmit the collected data for enrichment beyond the duration of a research program?

5.4. Antoine Petit Université Lyon 2, France

The Best of Both Worlds: On Continuous Ontologies, Mixed Methodologies, and Regaining What Is Lost in (Popular) Music Analysis

Music ontologies have traditionally been thought of as discrete (usually) binaries such as written/oral, or Goodman's (1976) autographic/allographic. Despite their seemingly sufficient explanatory power, these models inevitably struggle when faced with fundamentally mixed phenomena like ornamentation, the partimento tradition, or fantasias and other "improvised" genres (Caporaletti 2019, chap. 3–4) – an issue that the inclusion of popular music within music studies mostly failed to address, and which thus remains embedded in the discrete triplet of the classical/folk/popular. Analytical methodologies therefore overwhelmingly favor either symbolic or acoustic data, a semiotic divide made particularly obvious by analytical software (Guillotel-Nothmann 2020).

Following Genette's (2010) interpretation of Goodman's ontological dichotomy, as well as Laurent Cugny's (2021) identification of multiple production regimes after Vincenzo Caporaletti's (2019) theory of audiotactile music, we suggest substituting strict categorical boundaries with a looser textual hierarchy (Cugny 2021) which would allow analysts not to take sides. Although we believe such "continuous ontologies" to always be beneficial, they seem particularly promising for popular music analysis, enabling one to move fluidly between the primary audiotactile text (the recording) and the secondary visual text (the transcription), as our own computational analyses of mainstream pop songs will illustrate.

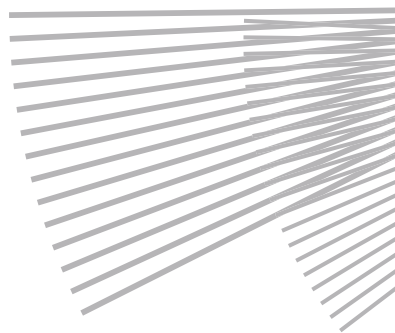
5.5. Olivier Lartillot

University of Oslo, RITMO Centre for Interdisciplinary Studies
in Rhythm, Time and Motion, Norway

Towards a Comprehensive Modelling Framework for Computational Music Transcription/Analysis

Computational music analysis, still in its infancy, lacking overarching reliable tools, can be seen at the same time as a promising approach to fulfill core epistemological needs. Analysis in the audio domain, although approaching music in its entirety, is doomed to superficiality if it does not fully embrace the underlying symbolic system, requiring a complete automated transcription and scaffolding of metrical, modal/harmonic, voicing and formal structures on top of the layers of elementary events (such as notes). Automated transcription enables to get over the polarity between sound and music notation, providing an interfacing semiotic system that combines the advantages of both domains, and surpassing the limitation of traditional approaches based on graphic representations. Deep learning and signal processing approaches for the discretisation of the continuous signal are compared and discussed. The multi-dimensional music transcription and analysis framework (where both tasks are actually deeply intertwined) requires to take into account the far-reaching interdependencies between dimensions, for instance between motivic and metrical analysis. We propose an attempt to build such a comprehensive framework, founded on general musical and cognitive principles and an attempt to build music analysis capabilities through a combination of simple and general operators. The validity of the analyses is addressed in close discussion with music experts. The potential capability to produce valid analyses for a very large corpus of music would make such a complex system a potentially relevant blueprint for a cognitive modelling of music understanding. We try to address a large diversity of music cultures and their specific challenges: among others, *maqam* modes (with Mondher Ayari), Norwegian Hardanger fiddle rhythm (with Mats Johansson and Hans-Hinrich Thedens), djembe drumming from Mali (with Rainer Polak) or electroacoustic music (Towards a Toolbox *des objets musicaux*, with Rolf Inge Godøy). We aim at making the framework fully transparent, collaborative and open.

EMMA



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A

Biographies

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Nidaa Abou Mrad
Université Antonine, Lebanon

Professor of musicology and medical doctor, Vice-President for Academic Affairs and Research, Dean of the Faculty of Music and Musicology and Director of the Research Centre for Musical Traditions at the Antonine University (Lebanon) and Editor-in-Chief of the *Revue des traditions musicales*, Nidaa Abou Mrad has published about forty articles in encyclopedias and scientific journals and a book on modal semiotics (*Éléments de sémiotique modale: Essai de grammaire générative pour les traditions monodiques*, 2016, Paris, Geuthner) – a theory for which he was awarded the 2017 CNRS-Lebanon Scientific Excellence Prize. As a violinist and composer, specializing in the Arabic artistic musical tradition of the Mashriq, he has published twenty CDs.

Lee Cannon-Brown
Harvard University, USA

Lee Cannon-Brown is a doctoral candidate in music theory at Harvard University. He was a lecturer at the University of Massachusetts Amherst for Fall 2022, and he is a former chair the Society for Music Theory's Music and Philosophy Interest Group. In his dissertation, Cannon-Brown re-evaluates the history of early post-tonal thought from a global perspective, excavating a network of theories that emerged contemporaneously in Austria and Germany, Russia, the United States, and Mexico. His dissertation has been supported by the Paul Sacher Foundation and the Social Sciences and Humanities Research Council of Canada. In an additional research project, Cannon-Brown interrogates epistemological commitments in contemporary American music theory, with an eye toward new possibilities for realism. He will be presenting on the latter project at this conference.

Riccardo Castagnetti

University of Modena-Reggio Emilia, Italy

Harvard University, USA

Riccardo Castagnetti is Marie Skłodowska Curie Global Fellow at the Universities of Harvard and Modena–Reggio Emilia with the project MARTINET – Musicians in the “Republic of Letters”: For a Social Network Analysis of Giambattista Martini’s Correspondence. He holds M.A. degrees in Philosophy, in Religious Studies, in Composition and in Organ. His publications focus on 18th-century music history, music theory and performance practice. In his monograph *Alla scuola del maestro di cappella: Andrea Basili e la didattica della composizione nel secolo XVIII*, he provides an in-depth analysis of Andrea Basili’s teaching methodology and a critical edition of his correspondence with Giambattista Martini.

Thomas Christensen

University of Chicago, USA

Thomas Christensen is the Avalon Foundation Professor of Music and the Humanities at the University of Chicago, where he has taught since 1999. A scholar of historical music theory and its intellectual and social contexts, he has published a number of monographs, including a major study of the music theory of Jean-Philippe Rameau in 1993. He was also the editor of the *Cambridge History of Western Music Theory* which appeared in 2002, and most recently, an anthology of essays published by Ashgate Press in 2014 entitled *The Work of Music Theory*. Professor Christensen has been the recipient of numerous fellowships and awards; he was a fellow at the Wissenschaftskolleg in Berlin Germany in 2011–2012, and most recently the recipient of both an ACLS and a Guggenheim Fellowship to support his most recent book: *Stories of Tonality in the Age of François-Joseph Fétis*, which was published the University of Chicago Press in 2019. Christensen is currently co-editing an anthology of readings on the global history of music theory.

Daniel K. L. Chua
University of Hong Kong, Hong Kong

Daniel KL Chua is Chair Professor of music at the University of Hong Kong. Before joining Hong Kong University to head the School of Humanities, he was a Fellow and the Director of Studies at St John's College, Cambridge, and later Professor of Music at King's College London. He is the recipient of the 2004 Royal Musical Association's Dent Medal, a Corresponding Member of the American Musicological Society, and a Corresponding Fellow of the British Academy. He served as the President of the International Musicological Society 2017-2022. He has written widely on music but is particularly known for his work on Beethoven, the history of absolute music, and the intersection between music, philosophy and theology. His publications include *The 'Galitzin' Quartets of Beethoven* (Princeton, 1994), *Absolute Music and the Construction of Meaning* (Cambridge, 1999), *Beethoven and Freedom* (Oxford, 2017), *Alien Listening: Voyager's Golden Record and Music From Earth* (Zone Books, 2021), 'Rioting With Stravinsky: A Particular Analysis of the Rite of Spring' (2007), and 'Listening to the Self: The Shawshank Redemption and the Technology of Music' (2011).

Ron Cohen
University of Haifa, The Center for Middle Eastern Classical Music
Jerusalem, Israel

Ron Cohen is a professional Bansuri player and teacher, Indian classical music specialist and ethnomusicologist. Since 1997 he has been studying Hindustani Music in the traditional teacher disciple oral tradition with Pandit Hariprasad Chuarasia India's foremost Bansuri player and received vocal training in India from prominent teachers. He has been teaching and performing Indian classical music in Israel, Europe, and India since 2000. He belongs to the teaching staff of The Center for Middle Eastern Classical music in Jerusalem and has been teaching courses and lecturing on Indian music and world music in Haifa University, The Rubin Academy of Music and Dance and other universities in Israel. His M.A. thesis analyses melodic motion and structural development in Hindustani music, utilizing MIR tools. His research interests include practice-based-research, improvisational environments in cross-cultural music making, comparative ethnomusicology between central Asian traditions and the mechanism of orally transmitted knowledge in music.

Pierre Couprie

Université Paris-Saclay, Centre d'Histoire Culturelles des Sociétés
Contemporaines, France

Pierre Couprie is a researcher specialized in the analysis of 20th and 21st centuries music, digital musicology, and the relationship between music and technology. He is Professor of Musicology and Director of the Music and Performing Arts Department at the University of Evry Paris-Saclay. He is a member of the Association francophone d'informatique musicale (Afin) and of the organizing committee of the Electroacoustic Music Studies Network (EMS). Since 2004, he has been collaborating with the Music, Technology and Innovation–Institute for Sonic Creativity (MTI²) at De Montfort University in Leicester on historical referencing and computer development projects in the field of electroacoustic music studies. In 2015, he was awarded the Qwartz Max Mathews Award for Technological Innovation for his software to assist in musical analysis (iAnalysis and EAnalysis).

Musician and composer of instrumental and electroacoustic music, he studied at the conservatoires of Bordeaux, Boulogne-Billancourt, Orsay and during composition courses in Darmstadt. Since the end of the 1990s, he has been practicing free electroacoustic improvisation.

Adam Filaber

McGill University, Canada
Sorbonne Université, IReMus, France

Adam Filaber is a first-year doctorand studying under the joint supervision of Robert Hasegawa at McGill University and Théodora Psychoyou at Sorbonne Université, within the framework of a cotutelle combining the respective institutions' Ph.D. programs in music theory and *musique et musicologie*. Centered at the junction of music theory, linguistics, and cognitive studies, his current research explores the impact of this conflux on musicological discourse, notably regarding harmonic analysis. As an *ingénieur d'études* at the *Centre National de la Recherche Scientifique* (CNRS) and the *Institut de Recherche en Musicologie* (IReMus), he is participating in *Tonalities*, one of the pilots of the EU-funded project *Polifonia: a digital harmoniser for musical heritage knowledge*.

Corinne Frayssinet Savy
 IReMus, France

Corinne Frayssinet Savy, doctor of philosophy, HDR (Musicology, Sorbonne University) ethnomusicologist and anthropologist of dance, teaches music and art history in the CPGE Littéraire. She is a lecturer in the Department of Music and Musicology at the University Paul Valéry Montpellier 3 and an associate researcher at IReMus and at RIRRA21. She is a member of scientific committees, reading committees and scientific societies, in particular the Collection Flamenco-Editorial Universidad de Sevilla, and the Board of Directors of the French Society of Ethnomusicology. Her fields of investigation are : the anthropology of music, the anthropology of dance, musical and sound ontologies, theories of performance and body techniques. She is the author of articles and book chapters on flamenco. She has published *Israel Galván. Danser le silence. Une anthropologie historique de la danse flamenca* (2009) and its translation *Israel Galván. Bailar el silencio. Una antropología histórica del baile flamenco* (2015).

Richard Freedman
 Haverford College, USA

Freedman is Professor of Music and John C. Whitehead Professor of Humanities at Haverford College. Widely published on the musical cultures of the Renaissance, he has also been a leader in digital musical scholarship through his work with the American Musicological Society, the Renaissance Society of America, and Répertoire International de Littérature Musicale. His digital projects (The Lost Voices Project [2012–2014; <http://digitalduchemin.org>] and Citations: The Renaissance Imitation Mass [2014–Present; <http://crimproject.org>]) have been sustained by an enduring partnership with Centre d'études supérieures de la Renaissance in Tours, and by awards from the National Endowment for the Humanities, the Mellon Foundation, La Maison des sciences de l'homme, the American Council of Learned Societies, and by Le Studium, the Loire Valley Institute for Advanced Study in Orléans, where in 2019 he held the Marie Skłodowska-Curie Research Fellowship.

Jonathan Goldman

Université de Montréal, OICRM, Canada

Jonathan Goldman's research focuses on modernist and avant-garde music in a regional perspective. His book *The Musical Language of Pierre Boulez* (CUP, 2011) won an Opus Prize for book of the year. In November 2018, his edition (co-translated and co-edited with Jonathan Dunsby and Arnold Whittall) of Boulez's writings (*Music Lessons: The Collège de France Lectures*), for which he authored the preface, was published by Faber (UK). He edited a volume on Quebec composers in 2014 (*La création musicale au Québec*, PUM) and another on creative process (*Texts and Beyond*, UT Orpheus) in 2016. Yet another multi-authored volume, *The Dawn of Musical Semiology* (University of Rochester Press), co-edited with Jonathan Dunsby, was published in 2017. Jonathan Goldman was editor of the contemporary music journal *Circuit* from 2006 until 2016 and Music Editor of the *Routledge Encyclopedia of Modernism*. His articles have appeared in journals such as *Perspectives of New Music*, *American Music*, *Music Analysis* and *Twentieth-Century Music*. His current SSHRC-funded research explores Canadian composers whose work is marked by its encounter with Balinese Gamelan, while another SSHRC-funded project explores avant-garde responses to recorded sound in the mid-20th century. Jonathan Goldman also performs on the bandoneon, having performed as a soloist with such orchestras as I Musici de Montreal, Signature Symphony Tulsa and Symphony Nova Scotia. In 2015, he won a Juno award alongside the other members of the Canadian tango ensemble Quartango for best instrumental album as well as two Opus Prizes.

Pablo Gómez Ábalos

Universidad de La Rioja, Escuela Superior de Música de Alto Rendimiento, Spain

Pianist, clavichordist and scholar, contributor to the Barcelona Music-Museum. Holds a master's degree in Historical Performance (UAB/ESMUC) and a PhD in musicology (Universidad de La Rioja). He is developing an artistic-research project on the Clavecin roial, awarded with a Leonardo Grant 2017 from the BBVA Foundation, producing the instrument first worldwide copy. He has performed recitals on early keyboards (original and copies) and published as editor and

co-author the book *The Zumpe & Buntebart square piano of the Museu de la Música de Barcelona* (Documenta Universitaria, 2018). He also has published articles about gesture and corpography. He has been a teacher at the Universidad de La Rioja and currently is a piano and fortepiano teacher, the academic director of the master's degree in Pianistic Technique and Biomechanics, and the coordinator of the master's degree in Musical Performance and Research at ESMAR. His line of investigation puts together organology, biomechanics, and corporality into musicological research.

Jean-François Goudesenne
CNRS, IRHT, France

Jean-François Goudesenne is a researcher at the Institut de Recherche et d'Histoire des Textes (CNRS), in the musicology department founded by Michel Huglo in 1979. Instrumentalist and vocalist, his most important contribution is the discovery of the Western dialect of Gregorian Chant in Neustria (*Émergences du Chant Grégorien : Les strates de la branche Neustro-insulaire (687-930)*, Musam, 1, 2018). He is currently developing an interdisciplinary approach in musicology based on fragmentology of chant manuscripts from archives and comparative liturgy about chant restoration in Europe and the Eastern Mediterranean during the 19th and 20th centuries.

Christophe Guillotel-Nothmann
CNRS, IReMus, France

Christophe Guillotel-Nothmann studied organ, improvisation, linguistics and musicology at the Hochschule für Künste Bremen, the Conservatoire National de Région at Rueil-Malmaison, at the Université Paris-Sorbonne and at the Humboldt Universität, Berlin. He received his doctorate with a dissertation on the role of the dissonance in the crystallization of tonal syntax. Between 2007 and 2014 he was a lecturer at the Université Paris-Sorbonne. He has received fellowships from the Herzog August Bibliothek Wolfenbüttel, the Max-Planck-Institut für empirische Ästhetik and the Royal Society of Edinburgh. Since 2018

he is a permanent researcher at the CNRS, IReMus (UMR 8223). He served as a co-editor of the journal *Musurgia* between 2017 and 2023. At the IReMus, he is in charge of the team 3.1 «Théorie musicale, méthodes et pratiques analytiques» and is the lead of the H2020 project Polifonia (GA 101004746, coordinator: Valentina Presutti, Bologna) and of the ANR project CollabScore (coordinator: Philippe Rigaux, CNAM). His research interests include the history of music theory of the 16th and 17th centuries, music analysis, the epistemology of digital musicology and semiotics.

Netta Huebscher

University of Gothenburg, Sweden

Dr. Netta Huebscher (b. 1986) is a lecturer in musicology at the department of cultural sciences in Gothenburg university. She received her PhD in 2022 from Gothenburg University. Among her research interests are music theory and its historical sources, folk and traditional music, sampling, and K-pop. She is a founding member of Lynx Ensemble.

Ariane Jeßulat

Universität der Künste Berlin, Germany

Ariane Jeßulat studied music pedagogy and music theory at the UdK Berlin. She received her doctorate from UdK Berlin in 1999 and her habilitation from the Humboldt-Universität zu Berlin in 2011. From 2004 to 2015, she was a professor of music theory at the Hochschule für Musik Würzburg. Since 2015, she has been a professor of music theory at the University of the Arts Berlin. Her main research interests are 19th-century music and historical improvisation from the 16th century. She worked on the editorial team of the ZGMTH from 2015 to 2021 and is currently a member of the editorial team of *Musurgia*. Since 2020 she is PI in the DFG-Research Training Group 2638 Normativity, Criticism, Change, since 2021 she is leading a sub-project in the DFG Collaborative Research Centre 1512 Intervening Arts. Since 1989 she has worked as a composer-performer in the ensemble for contemporary and experimental music *die maulwerker*.

Chae-Lin Kim**Universität der Künste Berlin, Germany**

Chae-Lin Kim is a cellist and musicologist. She received her Diploma in cello from Frankfurt University of Music and Performing Arts, her MA in musicology from Freie Universität Berlin and recently completed her PhD in musicology at Berlin University of the Arts. Her research interests include music in Deaf culture, with a particular focus on signed performances, instrumental pedagogy and K-pop. She is currently a grantee of the Music & Minorities Research Center at the University of Music and Performing Arts Vienna.

Bassirima Kone**Université Félix Houphouët-Boigny, Ivory Coast**

Dr KONE Bassirima is Assistant Professor in the Department of Arts at Felix Houphouët-Boigny University in Abidjan. His research work is oriented towards the collection, conservation and enhancement of the Senufo cultural heritage in its musicological aspect, through the study of the Djéguélé (xylophones) and the ethnography of the singer Zélé de Papara. His objective is to explain this music in order to make it accessible to a large number of individuals, thus contributing to its protection while facilitating a better knowledge of the people. In this perspective, his research covers the relationships between music and language, the learning processes of traditional African instruments, especially Djéguélé, in contemporary context and the future of those musics. He is also interested, in the context of postcolonial Africa, in the evolution of urban music (Reggae, Zouglou, Coupé Décalé) whose foundations are found in traditional music. Author of a dozen scientific articles, two collective works, he has led several conferences on music.

Philippe Lalitte

Sorbonne Université, IReMus, France

Philippe Lalitte, PhD in Musicology, is currently Professor at Sorbonne University, full member of the Institut de Recherche en Musicologie (UMR 8223) and associate member of the Laboratoire d'Étude de l'Apprentissage et du Développement (UMR 5022). His research focuses on the analysis, performance and perception of 20th and 21st century art music. They explore new methods of analysis using digital technologies (sound representations and audio features). They attempt to transfer some theoretical tools from the cognitive sciences (auditory scene analysis, musical expectation theory) and semiotics to structural analysis and analysis of musical interpretation. He published numerous articles in national and international journals, edited six books and written two books *Analyser l'interprétation de la musique du xxe siècle* (Hermann, 2015) and *Stravinski et ses interprètes. Quatre-vingt-dix ans d'enregistrements du Sacre du printemps* (EUD, 2022).

Olivier Lartillot

University of Oslo, RITMO Centre for Interdisciplinary Studies
in Rhythm, Time and Motion, Norway

Olivier Lartillot is a researcher at RITMO Centre for Interdisciplinary Studies in Rhythm, Time and Motion, at the University of Oslo. He works in the transdisciplinary field of computational music analysis, of audio, music scores and intermediary representations, articulating musicology, computer, cognitive science and signal processing. He obtained a funding from the Research Council of Norway under the FRIPRO-IKTPLUSS program, for a project called MIRAGE - A Comprehensive AI-Based System for Advanced Music Analysis (2020-2023, grant number 287152) and was previously an Academy of Finland Research Fellow. He designed MIRtoolbox, a reference tool for music feature extraction from audio. His work on score analysis has focused in particular on motivic pattern analysis. He recently founded the online Computational Musicology Working Group, and is a member of the Management Committee of EarlyMuse COST Action as well as the Editorial Board of the Transactions of the International Society for Music Information Retrieval (TISMIR).

Sylvie Le Bomin
Sorbonne Université, IReMus, France

Sylvie Le Bomin is Professor of Ethnomusicology at the Music and Musicology Department of Sorbonne University. She is a specialist in the music of Central Africa, which she has been studying for the past 30 years. Her research focuses on musical systematics and categorisation and, more recently, on the evolutionary history of the musical heritage and musical instruments of the populations of Central Africa by developing musical phylogeny methodologies. Sylvie Le Bomin is in charge of the ANR Ngombi project on the diversity and evolution of Central African harps. She is the author of two books, five records of traditional music and numerous articles and book chapters in ethnomusicology, but also in interdisciplinarity with researchers in population genetics and phylogeny. She has also worked closely for over 20 years with the Omar Bongo University in Libreville (Gabon) where she is co-director of two professional masters programs, one in museology and the other on the conservation and development of Gabon's heritage.

Adrien Malemprez
Université de Liège, Belgium

Adrien Malemprez is a doctoral researcher at the University of Liege since January 2023. His research, financed by the F.R.S.-FNRS and directed by Émilie Corswarem (senior researcher F.R.S.-FNRS), focuses on the representation of the Arab world in Hollywood soundtracks of the 21st century. In parallel to his research work, Adrien Malemprez is developing a workshop for the discovery and study of traditional music and instruments from the Arab world at the Museum of Musical Instruments in Brussels. His aim is to devise solutions to the lack of pedagogical facilities in the Wallonia-Brussels Federation, whether in music schools or elsewhere, for musicians to acquire a thorough knowledge of foreign traditional musical cultures.

Nicolas Meeùs
Sorbonne Université, IReMus, France

Nicolas Meeùs is Emeritus Professor of Sorbonne University, where he has been director of the Music Faculty (1999-2004) and assistant director of the Doctoral School “Concepts et Langages” (2001-2013). He has been director of the research teams “Langages musicaux” (1996-2006), then “Patrimoines et Langages musicaux” (2006-2009). He had been professor of music history in the Royal Conservatory of Liège (1971-1978), in the Royal Conservatory of Brussels (1978-1989) and in the Musical Chapel Queen Elisabeth (1980-1989). He was interim director of the Brussels Museum of Musical Instruments from 1990 to 1995, after having been there scientific collaborator from 1970. His research domains are organology, particularly the history of keyboard and of keyboard instruments; music theory and its history; Schenkerian theory and analysis. He is the French translator of *Der freie Satz*, the posthumous work (1935) of Heinrich Schenker.

Stefano Mengozzi
University of Michigan, USA

Stefano Mengozzi is Assoc. Prof. of Musicology at the University of Michigan and the co-editor of the Italian musicological journal *Polifonie*. His monograph *The Renaissance Reform of Medieval Music Theory: Guido of Arezzo Between Myth and History* (Cambridge, 2010) revisits the function and significance of the hexachordal system in the late Middle Ages through an analysis of select treatises from Guido of Arezzo to Zarlino. Recent studies include a critique of Dahlhaus’s essentializing of music-theoretical language and a new reading of Beethoven’s *Pathétique* sonata. The paper presented at EMA-2023 is part of a larger project investigating the role of music theory as a distancing device in modern studies of “early music.”

Antoine Petit**Université Lyon 2, France**

Antoine Petit is a PhD student in musicology at the University Lumière Lyon 2 in the Passages Arts & Littératures (XX-XXI) laboratory (EA 4160) and member of the “Analyse et tRansformation du Style de chant” (ARS) project (ANR-19-CE38-0001-03). His dissertation work focuses on the musical language of contemporary pop songs and aims to model their syntax within one or more generative grammars. He is also interested in the various rhetorical strategies employed in those songs, as well as in the discourses of both artists and commentators, which can induce or inhibit certain uses of the music, and to make or break communities of users. He is also pursuing research on techno music.

Holy Razafindrazaka**Académie Nationale des Arts et de la Culture, Madagascar**

After her studies at the University of Antananarivo, Holy Razafindrazaka obtained her Diploma of Musical Studies (Conservatoire d'Issy les Moulineaux), she also studied at the Francis Poulenc Conservatoire in Paris XVI^e and at the Rimsky-Korsakov National Superior Conservatory in Saint Petersburg. She also studied at the Ecole du Chœur Grégorien de Paris, where she was in charge of the school's administration and obtained her diploma in conducting. She interrupted her career as an opera singer to return permanently to Madagascar and created an association for the promotion of music: several of her students are performing as international renowned singers. In the meantime, she obtained her Bachelor's degree in musicology at the Sorbonne and her international Master's degree in Francophonie, Plurilingualism and Intercultural Mediation at the University of Antananarivo - University of Rennes II in 2017. She is currently preparing her doctoral thesis at the University of Antananarivo in parallel with her function as Director General of the National Academy of Arts and Culture, an organisation of the Ministry of Communication and Culture.

Lennart Ritz**Georg-August-Universität Göttingen, Germany**

I studied cultural musicology and cultural anthropology at the Georg-August-Universität Göttingen and graduated as M.A. in 2019 with a thesis on “Dub and Sound System Culture in Kassel”, wherein I analysed its sound qualities using Merleau-Ponty’s philosophy of corporeity. Since September 2019 I have been a research assistant in Cultural Musicology at the Department of Musicology in Göttingen, where I am also teaching regularly on analysis, popular music and sound studies since April 2020. In my PhD project I examine audio-collections of the Berlin Phonogram-Archive from former German colonies in the Pacific (1904-1915) in regard to epistemologies of sound. I work out tensions between creation and handling of the collections to disclose inherent power structures of colonial knowledge production with these collections. My research interests lie in sound studies, the history of knowledge and sound, and popular music studies.

Martin Scherzinger**New York University, USA**

Martin Scherzinger is an Associate Professor of Media Studies at New York University. He works on sound, music, media and politics of the 20th and 21st centuries, with a particular focus on music of Europe, Africa, and America, as well as global biographies of sound and other ephemera circulating in geographically-remote regions. The research includes the examination of links between political economy and digital sound technologies, poetics of copyright law in diverse sociotechnical environments, relations between aesthetics and censorship, sensory limits of mass-mediated music, mathematical geometries of musical time, histories of sound in philosophy, and the politics of biotechnification.

Jakob Uhlig**Philipps-Universität Marburg, Germany**

Jakob Uhlig studied Historical and Systematic Musicology at the University of Hamburg. In 2021, he completed his master's degree with a thesis on the Austrian Alban Berg student Fritz Heinrich Klein. Since 2022 he works as a research assistant at the Philipps University of Marburg, where he is writing his doctoral thesis on the reception and compositional practice of the chromatic total using the example of the Russian composer Nicolas Obouhow. Jakob Uhlig also works as a freelance music journalist and in this role reports in numerous formats mainly on topics from musical pop culture. He is the current chairman of the German umbrella organization of students of musicology. In this capacity, he founded StIMMe, the first German musicology undergraduate journal. His research interests include 20th and 21st century music history, the twelve-tone technique of the Viennese School, and composers' strategies of presentation and mediation.

Philippe Vendrix**CNRS, CESR, France**

Philippe Vendrix est un musicologue belge, directeur de recherche classe exceptionnelle au CNRS. Il est né le 29 mars 1964 à Liège (Belgique). Ses travaux portent sur l'histoire de la musique et la théorie musicale, de la Renaissance au XVIII^e siècle. Depuis 1992 il est directeur du Programme Ricercar, programme de recherche en musicologie du Centre d'études supérieures de la Renaissance de Tours. De 2007 à 2016 il a été directeur du Centre d'études supérieures de la Renaissance de Tours. De 2014 à 2016 il a été président du Réseau national Maisons des sciences de l'homme. De 2016 à 2020, il a présidé l'Université de Tours.

Sebastian Wedler
Utrecht University, Netherlands

Sebastian Wedler is Assistant Professor of Musicology at Utrecht University. Before joining the Department of Media and Culture Studies in 2022, he spent ten years at the University of Oxford as a Departmental Lecturer in the Faculty of Music and Director of Studies for Music at Merton College (2019–22), Junior Research Fellow at St. Hilda's College (2016–19), and a doctoral student at Merton College (2012–16). His works include articles and chapters in venues such as *Music Analysis*, *Twentieth-Century Music*, *The Cambridge Companion to Music and Romanticism*, *The Cambridge Companion to Serialism*, and *Beethoven in Context* (forthcoming). He is currently completing his first monograph on Anton Webern's tonal works. He was elected Prize Scholar at Merton College, is the recipient of the 'Link 2 Future' Award from the Psychoanalytic Seminar Zurich, held scholarships from the Arts and Humanities Research Council UK and the Paul Sacher Foundation, and has been selected to deliver the 2021 Anton Webern Lecture at the University of Basel. In recognition of his teaching, he was shortlisted for Outstanding Tutor in the Humanities by the Oxford University Student Union.

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Anna Yu Wang is a music theorist and ethnographer interested in what it means—and what it takes—to listen across lines of cultural difference. She studies habits of musical perception through a combination of field research, music analysis, and examination of historical sources. Her current research focuses on how intuitions for meter, form, and tonality in Sinitic opera communities are anchored within local epistemic and ideological paradigms. She is also working on a collection of translations of music theoretical source materials from underrepresented languages and communities. Her research is supported by a Canadian SSHRC Doctoral Fellowship and a Dissertation Fellowship from the Society of Music Theory.

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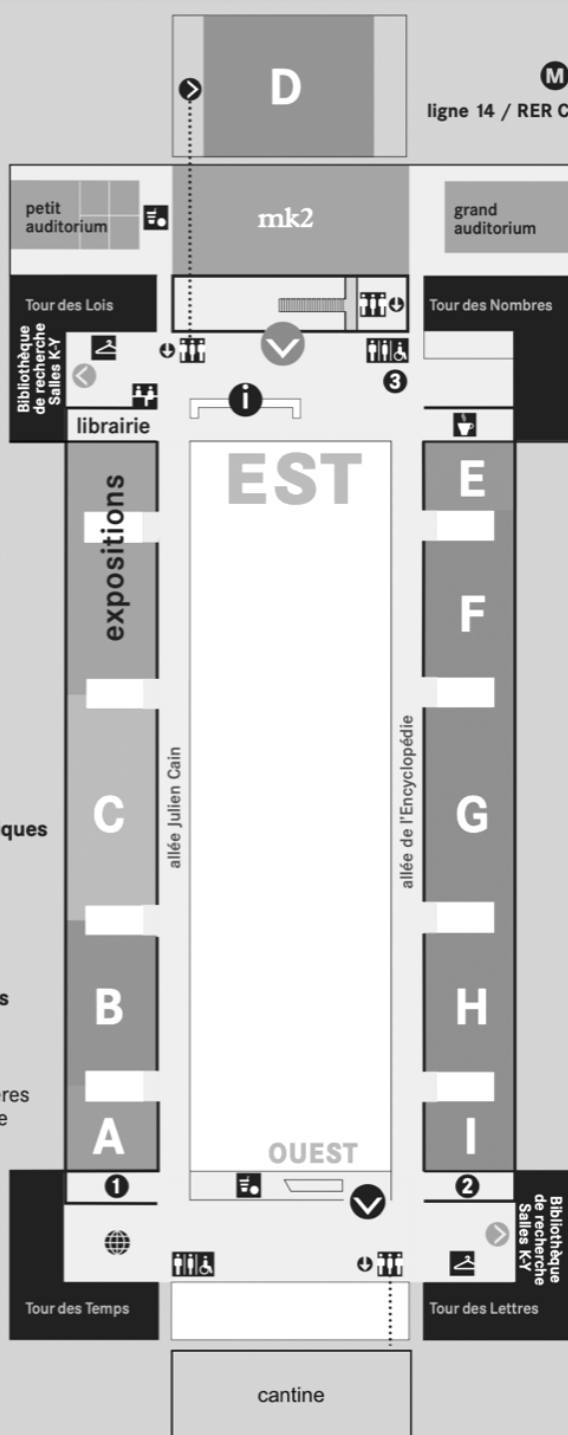


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