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The 14th International Conference of Students of Systematic Musicology (SysMus21)

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Abstract

The 14th International Conference of Students of Systematic Musicology (SysMus21) was held in a hybrid format that allowed both in-person and online participants to join. The SysMus conference series aims to foster a dynamic and interdisciplinary environment for students and early career researchers to share and discuss their work in the fields of systematic musicology and its related disciplines. This year at SysMus21, a total number of 26 oral and 35 poster presentations were held, covering a range of topics including well-being, data science, absorption and imagery, social connections, rhythm and groove, music information retrieval, sociology, cognition, and emotion. An introductory talk was given by Peter Vuust (Center for Music in the Brain, Aarhus University, Denmark), and two keynotes were presented by Jonna Vuoskoski (RITMO Center, University of Oslo, Norway) and Nori Jacoby (Max Planck Institute for Empirical Aesthetics, Frankfurt, Germany). Additionally, four workshops were held by Caitlyn Trevor, Joshua Bamford, Niels Christian Hansen, and Svenja Reiner, focusing on research skills relevant for developing a career in academia. In this report, an overview of the conference is provided including a summary of keynotes, presentations, workshops, and social activities, as well as a review of the advantages and challenges of the hybrid set-up.

Keywords

conference report, music psychology, systematic musicology, hybrid conference, student conference, SysMus

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Introduction

The 14th International Conference of Students of Systematic Musicology (SysMus21) was for the first time held in a hybrid format due to the current Coronavirus (Covid-19) pandemic, with a combination of online and in-person participants. The conference was hosted by the Center for Music in the Brain at Aarhus University on 3–5 November 2021 with a special satellite event held on 2 November 2021.

About SysMus

The SysMus conferences are annual student-run events designed to allow students in the fields of systematic musicology and science of music to meet and discuss their research. The conference series was co-founded by Manuela M. Marin and Richard Parncutt in 2008.

Since the beginning, it has embraced a great variety of topics and scientific approaches on the study of music perception and psychology, music theory, culture, acoustics, and modelling (Leman & Schneider, 1996). The SysMus

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conferences are also distinguished by a friendly and welcoming environment that allows early career researchers, including graduate and undergraduate students, to present their work and network with fellow music researchers.

SysMus21

The organising committee of the SysMus21 conference was chaired by Signe Hagner and included Christine Ahrends, Jan Stupacher, and Niels Christian Hansen as well as a group of students and researchers who also assisted with the conference organisation. With consideration to existing and ever-changing Covid-19 restrictions and the inclusion advantages remote access provides, the conference was held in a hybrid format. Participants joining in-person attended the conference at the Aarhus Institute of Advanced Studies at Aarhus University. Participants joining online attended the conference on Zoom and Gather.town and had access to all presentations and posters as well as interactive social events.

In total, SysMus21 hosted 55 in-person and 119 online participants. The number of participants in 2021 was more than 50 participants at the most recent in-person conference in 2019 (Kirk & Bresler, 2020), or the 60 participants at the most recent fully online SysMus conference in 2020 (Peck, 2020). At the end of SysMus21, 46 participants completed the follow-up survey which indicated that 80% of them were currently studying or working in Europe, 11% in the US or Canada, 4% in South or Central America, and 4% in Australia. Participation in the conference was free and 16 travel grants were awarded by the Society for Education, Music, and Psychology Research.

A total of 26 oral and 35 poster submissions were included in the conference programme. This number was higher than the 38 submissions in the previous conference in 2020 (Peck, 2020). In addition to the student presentations, an introductory talk was given by Peter Vuust, two keynote presentations were given by Jonna Vuoskoski and Nori Jacoby, and four workshops were held by Caitlyn Trevor, Joshua Bamford, Niels Christian Hansen, and Svenja Reiner.

Keynotes

The conference was opened by the organising committee and Peter Vuust, Director of the Centre for Music in the Brain at Aarhus University. After the introduction, Vuust gave a talk sharing his interest in the relevance of musical expectations for the musical experience. Specifically, he introduced the Predictive Coding framework (Vuust & Witek, 2014), which explains how the brain attempts to provide high-level representations of the world and uses them to predict sensory input, which allows focusing on novel, unpredicted information. He then presented examples of statistical learning of musical structure and the usage of surprise as a way of communication (e.g., Huron, 2008). The talk ended with evidence of the neural basis of the predictive coding framework (Vuust et al., 2018).

On the second day of the conference, Jonna Vuoskoski delivered a keynote titled *The social dimension of music cognition*. In her presentation, Vuoskoski first discussed how empathy can contribute to the embodiment of the rhythmic and emotional components of music (e.g., Vuoskoski & Eerola, 2012; Zelechowska et al., 2020). Then, she explored how listeners make social evaluations based on information from music and which musical parameters can shape people's evaluation of cultural groups. Finally, she talked about how being moved by music can be linked to appraisals and experiences of connectedness, and discussed her exciting topical research findings on social connectedness during the Covid-19 pandemic (e.g., Granot et al., 2021; Onderdijk et al., 2021). Overall, in her talk, Vuoskoski built on recent empirical evidence to argue that the social dimension of music cognition may be more important than previously recognised.

On the third day of the conference, Nori Jacoby gave a presentation titled *Universality and cross-cultural variation in mental representations of music revealed by global comparison of rhythm priors*. In his talk, Jacoby talked about his research that explores the mental representations of rhythm in 39 different groups across the continents, ranging from urban societies, through indigenous populations, to online participants (e.g., Jacoby and McDermott, 2017). His findings hint towards a universal feature of music perception: rhythm priors are perceived categorically in all cultures and are biased towards integer ratios, with some ratios being more prevalent in some cultures than others. Interestingly, he also found that university students and online participants from non-Western cultures resembled Western participants and underrepresented the variability that can be found outside these populations. Overall, Jacoby highlighted that, given the differences across cultures and the biased nature of the frequently used online and student populations, it is important to involve a greater variety of cultural backgrounds in musicological studies.

Presentations and Posters

Oral presentations were grouped based on their content and were held in three main sessions per day. Two to three presentations, either in-person or virtual, were scheduled for each session, comprising a broad view of subtopics within each field. The first day covered well-being, data science, absorption, and imagery; the second day covered social connections, rhythm and groove, and music information retrieval; and the last day covered sociology, cognition, and emotion.

The first day opened with a session on well-being. The cognitive and emotional components of musical awe were reported in one talk. Another study investigated factors that could potentially promote well-being in listeners during live music events. The last presentation of the session focused on the specific characteristics of music

performance anxiety in popular music singers. In the data science session, researchers presented work on resources for cataloguing tracks from certain musical genres such as folk and discussed effective tools for extracting musical tracks from their titles on the basis of linguistic weighting. The last session on imagery and absorption presented a study on mind-wandering at a live contemporary music event. Another study considered the precise content of visual mental imagery during music listening. The last talk of the session focused on absorption (i.e., the capacity of self-immersion in an aesthetic experience).

The second day started with a session on social connections. In two presentations, the relevance of interpersonal synchronisation for feelings of closeness and empathy was discussed on theoretical and experimental grounds. One presentation also addressed the socio-economic factors that might condition young peoples' choice to engage with music in school, from which implications for education policies can be drawn. During the fifth session, two studies conducted in the light of the predictive coding framework of rhythm and groove were presented: a computational study investigating how rhythm production can strengthen the metrical model and a pupillometry study focusing on the role of pickups and syncopations in the groove. The sixth session on music information retrieval included a research project on the preferences of singing voices according to the signal acoustic features. A presentation on the identification, description, and analysis of musical silence according to temporal, amplitude, and spectral features followed afterward. The last presentation focused on the topic of "the death of melody" and the gaps in previous research of contemporary pop music.

The first session on the third day focused on the sociology of music. Presentations explored the enjoyment of music with violent themes, the role of videos in affecting the perception of music-related meaning and emotions, and collectively improvised music as a form of political protest in the setting of democratic conversation. Then, presentations addressed the effects of music on cognition, starting with the use of computational models for monitoring micro-rhythms in Ghanian drumming. The next presentation demonstrated the effectiveness of auditory feedback in aiding motor learning of music across all skill levels. The last presentation focused on sophisticated modelling techniques, which allows the identification of brain patterns indicative of music listening compared to rest, corroborated by self-reported emotional state ratings. The final session of the conference included three presentations on emotional cues in musical perception. The first presentation discussed unifying two theories of emotion classification: namely the BRECVEMA (Juslin, 2013; Juslin & Västfjäll, 2008) and the Dimensional–Appraisal (Scherer, 2009) models. Next, the implementation of an interactive tool that allows us to explore in detail the different acoustic features that determine certain perceived emotions was presented. Finally, the last presentation of the conference discussed the effects of background music on mood and attentional states.

Workshops

On the first two days of the conference, participants had the opportunity to attend in-person or virtual workshops and choose from a variety of topics based on their interests. On the first day, they chose from two workshops that focused on collaboration and crossing disciplinary boundaries in systematic musicology research. The first workshop, titled *How to make friends and collaborate with them,* was led by Joshua S. Bamford at the conference venue and discussed the social side of research. During the workshop, he explored topics such as networking more efficiently, finding colleagues to collaborate with, being a good collaborator, and the value of collaborating with others and making friends.

The second workshop, titled *Changing paths and crossing disciplinary boundaries in systematic musicology research*, was led by Caitlyn Trevor in a hybrid format and explored the value of carrying out interdisciplinary work and moving across fields. She discussed how researchers can build their skills and expertise, formulate novel research questions, invent ground-breaking methodologies, and broaden the applications of their findings.

On the second day, the workshops focused on communicating scientifically and publishing their study results in the field of systematic musicology. The workshop titled *Getting your research published in systematic musicology* was held virtually on Zoom by Niels Chr. Hansen. He discussed how to choose the right journal to publish and how to prepare the manuscript to avoid easy pitfalls. The workshop provided insight into how the review process works, how long it can take, and how and when to communicate with the editors. He then mentioned the modern use of *tweetstracts*; sharing your publication on social media and its impact on citations.

Finally, the workshop titled *So baby talk to me – like scientists do: Scientific communication in music-based research* was led by Svenja Reiner at the conference venue. During this workshop, she explored the challenges and possibilities of scientific communication in music-based research. She elaborated on effective ways of communication in terms of the intricacies of the language used, the complexity of the content presented, and the relevance to the wider public.

Social Activities

The SysMus21 team accommodated the conference participants with a large variety of social events. With regular and well-timed coffee breaks, colourful lunch menus, and carefully organised social events, the schedule allowed for ample time to socialise and network with fellow in-person and online colleagues. There were some well-organised in-person social events to make note of, as well as social events specifically curated for online participants (see the section, Hybrid Format).

At the start of the conference on 2 November, a satellite event was held at the Center for Music in the Brain. During the event, participants had the opportunity to hear about

current research projects, such as beat perception, tapping, functional magnetic resonance imaging (fMRI) network analysis, and clinical applications of music-based interventions. This was followed by a tour of research facilities including the electroencephalogram, magnetoencephalogram, and fMRI laboratories.

On the first official day of the conference, participants were invited to an evening of pizza and refreshments in one of the social halls at the conference venue. As the first event of the conference, this provided an easy-going environment where new and old connections could be made.

During the next evening, participants were invited to dinner at *Hantwerk*, a micro-brewery where everyone was treated to a pre-selected (and dietary-requirement friendly) menu of Aarhus' traditional dishes, coupled with *Hantwerk*'s light and dark beer selection.

The final day of the conference coincided with the Christmas Beer Release Day, a special celebration day in Aarhus where citizens celebrate the start of the Christmas period with the release of a special Christmas-flavoured beer. In the evening, the conference participants were invited to a local bar to taste the Christmas beer and socialise, providing a pleasant end to the conference. In all, the SysMus21 team provided a highly enjoyable and noteworthy selection of social events to accompany the scheduled talks and workshops.

Hybrid Format

The conference was held in a hybrid format that allowed participants to join either in-person or online. The hybrid setup worked well as there were no major technical issues and provided online participants with the opportunity to take part in most of the activities. With the exception of the satellite event and the in-person social activities, all activities were available online, including in-person presentations and workshops. During the presentations, presenters' slides and videos were shared as a 'shared screen' and two cameras showed the speaker and the audience. Both video and sound quality were excellent, in particular for questions from the live audience. One of the workshops did not take place in the main room and was shared online with a computer in the room. In that case, streaming audio quality was also very good but asking questions as an online participant was less seamless as the volume of the computer speakers was not loud enough. There were two online workshops that were held on Zoom for all participants.

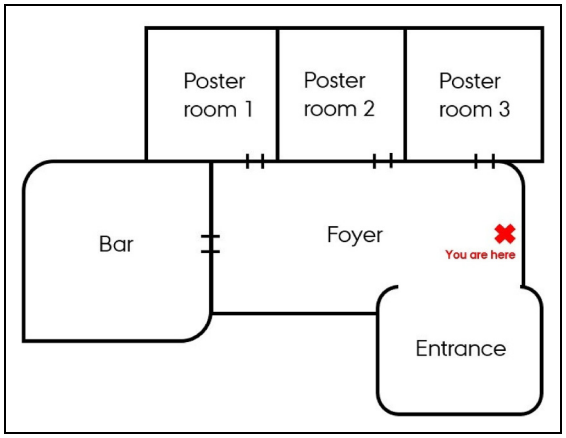

Figure 1. Diagram of the virtual venue at Gather.town.

The poster sessions and virtual social activities (e.g., quizzes and games) were held on Gather.town, a virtual platform where participants can move in a two-dimensional space and talk with people close by. The virtual venue consisted of a foyer and four rooms, one intended for socialising and the rest for the three poster sessions (see Figure 1). This set-up allowed access to all posters and poster blitzes at all times and allowed participants – online and in-person – to interact with each other. Poster sessions were held in Gather.town for all participants (in-person and online), allowing an equal level of interaction.

In addition to the virtual social activities, specific online *mingling* sessions were scheduled in the programme. For the online mingling sessions, individual tables in the virtual foyer were dedicated for each presentation session, and speakers were invited to the tables to engage with online participants. These dedicated slots in the programme highly encouraged networking between in-person and online participants. Finally, on the first two days of the conference, another time was allotted for social activities. In particular, on the second day, a trivia contest was held. This non-academic activity encouraged mingling between online participants especially.

Although the hybrid set-up had many advantages such as allowing participants from all around the world to join, it also had its challenges. For example, there was no other method to approach other participants outside the scheduled social times at Gather.town. Secondly, online participants had to struggle with large time-zone differences that made some events impractical to join. In the future, this could be addressed by repeating the sessions (either recorded or live) at different times. Finally, from the perspective of in-person participants, a laptop and headphones were required to access the poster sessions and virtual social activities, which could have been communicated more clearly before arriving at the conference.

Summary and Closing Remarks

Despite the challenges of the ongoing Covid-19 pandemic in November 2021, the SysMus21 conference was carried out with proficiency, allowing the presentation of broadly ranged high-quality research. The quality of the conference organisation and the content of the presentations was reflected in the increased number of both in-person and online attendees. The organisation also put into practice the experience provided by two years of academic work developed online and the previous fully online conference (Peck, 2020). These were present in the inclusion of the online audience by means of scheduled virtual social

activities and *mingling* sessions. Such inclusive features are a reflection of the light-hearted and welcoming spirit that is characteristic of the SysMus series.

Whether academic conferences will continue to maintain a hybrid format and whether a more seamless integration between both forms of attendance can be achieved remains an open question. SysMus22 will be held in a hybrid format in Ghent, Belgium on 7–9 September 2022, at the Institute for Psychoacoustics and Electronic Music, Ghent University.

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Author Contributions

LK, MM, CG, SH, and NDA developed the concept and design of the report. All authors contributed to the first draft of the manuscript. LK and MM reviewed and critically edited the manuscript. All authors read and approved the final manuscript.

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