

Preface

Welcome to ISMIR 2020, the 21st International Society for Music Information Retrieval Conference. ISMIR is the world's leading research forum on processing, searching, organizing, and accessing music-related data. Our community reflects a diversity of scientific disciplines, seniority levels, professional affiliations, and cultural backgrounds. It always has been explicitly interested in fostering and stimulating this diversity, leading to better science and better music services. Due to Covid-19, our 21st ISMIR conference has become our first fully online conference. We hope that this new form of interaction will allow more people, from more different places and communities, to participate. The organizing team in Montreal, and the international team of organizers, reviewers, and meta-reviewers, welcome you to our virtual meeting place.

Scientific Program

A total of 326 abstracts were registered, of which 300 were submitted as full papers eligible for review. The reviewing model was similar to that of previous years, consisting of a two-tier, double-blind process performed by 313 (anonymous) reviewers and 71 meta-reviewers. The scientific program chairs (SPC) anticipated limited availability of reviewers due to the COVID-19 crisis. This, combined with a 20% increase in the number of papers relative to the previous year, led the SPC to actively recruit a 50% larger reviewing pool to reduce the number of papers for which each individual reviewer is responsible. The SPC was happy to welcome a large number of first-time reviewers to the pool, but to ensure that each paper is adequately reviewed, we increased the number of reviewers assigned to each paper. The SPC would also like to thank all community members for their overwhelming response to our requests for additional reviewers and meta-reviewers.

Each paper was assigned to a single meta-reviewer and 4 reviewers, to ensure that each would eventually receive at least 3 completed reviews, accounting for the foreseen limited availability of some reviewers. Meta-reviewers were also instructed to complete a full review of each of their assigned papers, in addition to the final meta-review summarizing the individual reviews. Each meta-reviewer was responsible for between 2 and 5 papers, and each reviewer was responsible for no more than 4 papers. The initial reviewing phase was followed by a discussion period, in which reviewers and meta-reviewers could discuss and revise their assessments of each paper. Meta-reviewers were then instructed to summarize the discussion and reviews in the final report. The SPC finally rendered decisions on each paper.

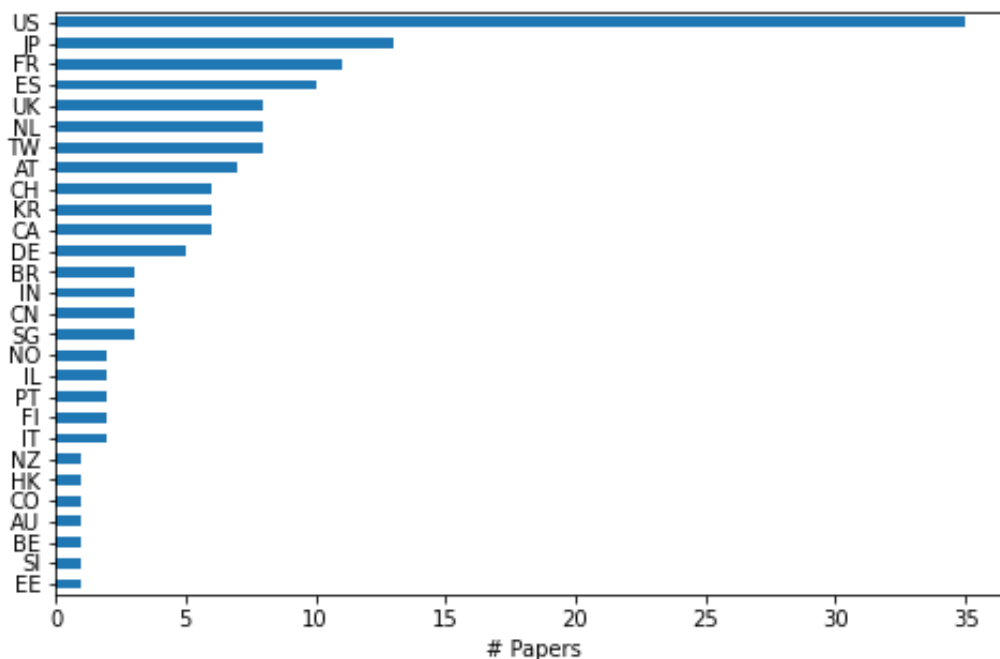
Although the ISMIR 2020 conference is virtual and physical space no longer provided, a constraint on the number of papers we could accept and the allocated time for the conference program resulted in a program of comparable size to previous years. Of the 300 papers reviewed, 115 were accepted for publication, resulting in an acceptance rate of 38.3%. At submission time, authors selected primary and secondary subject areas for their paper. The following table summarizes the number of eligible submissions and accepted papers for each primary category.

Subject Area	Submitted	Accepted	Accept %
Applications	42	15	36
Domain knowledge	61	22	36
Evaluation, datasets, reproducibility	33	10	30
Human-centered MIR	18	8	44
MIR fundamentals	16	7	44
MIR tasks	83	29	35
Musical features and properties	43	22	51
Philosophical and ethical discussions	4	2	50
TOTAL	300	115	38

The table below summarizes the publication statistics over the 21-year-history of the conference.

Year	Location	Oral	Poster	Total	Authors	Unique Authors	Authors / Paper	Unique Authors / Paper
2000	Plymouth	19	16	35	68	63	1.9	1.8
2001	Indiana	25	16	41	100	86	2.4	2.1
2002	Paris	35	22	57	129	117	2.3	2.1
2003	Baltimore	26	24	50	132	111	2.6	2.2
2004	Barcelona	61	44	105	252	214	2.4	2.0
2005	London	57	57	114	316	233	2.8	2.0
2006	Victoria	59	36	95	246	198	2.6	2.1
2007	Vienna	62	65	127	361	267	2.8	2.1
2008	Philadelphia	24	105	105	296	253	2.8	2.4
2009	Kobe	38	85	123	375	292	3.0	2.4
2010	Utrecht	24	86	110	314	263	2.0	2.4
2011	Miami	36	97	133	395	322	3.0	2.4
2012	Porto	36	65	101	324	264	3.2	2.6
2013	Curitiba	31	67	98	395	236	3.0	2.4
2014	Taipei	33	73	106	343	271	3.2	2.6
2015	Málaga	24	90	114	370	296	3.2	2.6
2016	New York	25	88	113	341	270	3.0	2.4
2017	Suzhou	24	73	97	324	248	3.3	2.6
2018	Paris	104			337	265	3.2	2.5
2019	Delft	114			390	315	3.4	2.8
2020	Montréal / Virtual	115			426	343	3.7	3.0

The figure below illustrates the number of papers accepted with at least one contributing author from each country. Geographic affiliations were inferred from self-reported author affiliations and email addresses.



Best Paper Awards

The SPC established 6 paper award categories: Best Research, Best Application, Best New Direction, Best Multi/Interdisciplinary Research, Best Evaluation, and Best Reproducibility. The papers considered for an award were those with the highest review scores, as well as papers nominated for an award by meta-reviewers. We formed a best-paper-award committee comprising 4 highly renowned members of the MIR community and the SPC. Each member of the committee identified their conflicts of interest and judged only the remaining other papers, as well as reviews and meta-reviews of those papers. They then proposed papers from that group for each award category and provided justifications for their decisions. Once all members of the committee had completed their nominations, the whole committee met to make the final decisions.

Best Reviewer Awards

Based on the scores provided by meta-reviewers on the quality of individual reviews, in relation to the number of papers reviewed by each reviewer, the SPC selected a total of 13 awardees.

Organizing a Conference During a Pandemic

The organizing team had to face several challenges while planning this conference. After having planned for a regular, face-to-face meeting in Montreal, we had to come to the conclusion that this year's ISMIR Conference would have to be entirely virtual when it became clear that the COVID-19 pandemic would not be over in time for allowing people to travel and safely attend the conference. After the initial disappointment, however, the team was very enthusiastic to plan for the first virtual ISMIR Conference, and saw this as an opportunity to innovate and create a positive experience for all participants, while ensuring that the conference would be more affordable, accessible, inclusive, and sustainable thanks to this new format.

WiMIR

WiMIR is a group of people dedicated to promoting the role of, and increasing opportunities for, women in the MIR field. WiMIR's initiatives started as informal gatherings around breakfast or lunch during ISMIR conferences (2011–2013), and moved to formal WiMIR events included in the conference program (2015–today) garnering a high turnout of both women and allies. These events provide occasions for people to network and to discuss several important issues ranging from mentorship and conference support, to improving the representation of women and, more broadly, diversity, in the community. In 2018, WiMIR started hosting its own workshop as a satellite event, in which attendees of all genders

participated in high numbers. These workshops aim to offer participants an opportunity for networking, put the spotlight on the work done by women in the field, and foster collaboration between women and allies by proposing group work led by project guides to try to solve small research problems or to undertake new research projects that could lead to longer-term collaborations.

WiMIR and the ISMIR 2020 organizing team worked together to increase women participation and ensure a good representation of women in the conference program. Both conference keynote speakers are esteemed female researchers with an impressive career path. The program also includes 9 meetup sessions with notable women in MIR that were organized by the ISMIR 2020 WiMIR chairs. Additionally, 3 types of grants were offered to female participants: registration grants, publishing fee grants, and, for the first time for an ISMIR conference, childcare grants.

Like for the main conference, the WiMIR workshop organizers had to rethink the event in the context of the pandemics. The workshop consisted this year in 4 sessions that took place over 8 weeks, featured speakers from India, Australia, California, and Europe, and attracted over 450 participants. WiMIR also ran this year the fifth round of its mentoring program, which aims at connecting “women students, postdocs, early-stage researchers, industry employees, and faculty to more senior women and men in MIR who are dedicated to increasing opportunities for women in the field” (<https://wimir.wordpress.com/mentoring-program/>).

Diversity & Inclusion

Diversity and inclusion are values that are dear to the ISMIR 2020 organizing team. The Black Live Matters movement and research on algorithmic racism have only increased our awareness of the need for more diversity in our field. Knowing that people from the Black community were severely underrepresented among attendees at previous ISMIR conferences, efforts were made to reach out to Black people who could be interested in MIR. Therefore, in addition to the WiMIR grants mentioned above, fee registration waivers were offered to people who self-identified as Black. ISMIR 2020 also featured the first African American keynote speaker in an ISMIR conference, Dr. Safiya U. Noble.

The virtual format of the conference also allowed us to significantly lower the registration fees for the conference. Additionally, it was decided that not only would students be able to benefit from a reduced fee, but also people from low GDP countries, or with low income.

Keynote Speakers

For ISMIR 2020, we are honored to host 2 distinguished keynote speakers:

Safiya U. Noble, Associate Professor, Department of Information Studies, University of California, Los Angeles, presenting “Taking on big tech: New paradigms for new possibilities.”

Johanna Devaney, Assistant Professor of Music, Brooklyn College, and Graduate Center, CUNY, presenting “Beyond the current conception of musical performance in MIR” (WiMIR keynote).

Tutorials

ISMIR 2020 tutorial chairs have selected 5 tutorials that will be presented on Sunday, October 11:

Tutorial 1: Prototyping and scaling audio research with Klio by Fallon Chen and Lynn Root;

Tutorial 2: Analysis of expressive timing in recorded music performances by Nico Schüler;

Tutorial 3: Metric learning for music information retrieval by Brian McFee, Jongpil Lee, and Juhan Nam;

Tutorial 4: Open-source tools & data for music source separation: A practical guide for the MIR practitioner by Ethan Manilow, Prem Seetharaman, and Justin Salamont;

Tutorial 5: Version identification in the 20s by Furkan Yesiler, Christopher Tralie, and Joan Serra.

Late Breaking/Demo and Industry Session

The Late Breaking/Demo (LBD) and Industry session will take place on Friday, October 15. LBD posters feature prototype systems, initial concepts, and early results that have not yet fully matured but are of interest to the MIR community. Proposals went through a light review by the LBD chairs, at the end of which 27 were admitted for presentation. Extended abstracts are available online on the conference website.

Meetup with Industry

As part of ISMIR 2020, a virtual Meetup with Industry series will be hosted. This series includes Interview masterclasses, where industry interviewers will perform mock interviews with volunteers and provide real time feedback, and code review masterclasses on good coding practices from an industry standpoint during which experienced developers will live-review volunteer submitted repositories.

Music

ISMIR music chairs invited composers, technologists, and performers to submit pieces from any musical genre and in any style of electronic, acoustic, or mixed electroacoustic music that explored the notion of music information in the widest sense of the term. The musical works that were submitted were subjected to blind review by the ISMIR 2020 music chairs and an international panel of musicians. The following compositions were selected and will be presented in the 3 music sessions scheduled throughout the conference:

#otherbeats, by Marcel Zaes;

A Room with Chaconne (Bach), by Seth Thorn;

Attempts at Stillness, by Pierre Alexandre Tremblay;

bell / boom, by Jeremy Hyrkas;

Blue Sky Catastrophe, by Seth Shafer;

cecia, by the CECIA team;

DigiTral, by Matheos Zaharopoulos and Georgios Varoutsos;

Generative Sibelius, by Juan Carlos Vasquez;

I'll Marry You, Punk Come, by CJ Carr;

Moon via Spirit, by Lauren Hayes;

Mosaicing, by Panayiotis Kokoras;

Sound | Figuration, by Hongshuo Fan;

Spectre (for processed solo voice), by Max Addae;

Super Colliders, by Takuto Fukuda;

The Pulse of The Sunrise, by Peyman Heydarian;

Transcognition, by Fernando Egido;

Trees, by Alexandra Uitdenbogerd.

Satellite Events

In addition to the main conference, 4 satellite events are offered to participants:

WiMIR 3rd Annual Workshop, held before the conference in 4 sessions across 8 weeks, from August 22 to October 3;

7th International Conference on Digital Libraries for Musicology (DLfM), held on October 16 as a full-day virtual conference;

NLP4MusA: First Workshop on NLP for Music and Audio, held on October 16 and 17 as a virtual conference with live presentations on the 16th that will be streamed on the 17th, and live Q&A sessions on both days;

HAMR Hackathon, held asynchronously over October 16 and 17.

Acknowledgements

We are very proud to present to you the proceedings of ISMIR 2020. The conference program was made possible thanks to the hard work of many people, including the ISMIR 2020 conference chairs, the administrative staff at Schulich School of Music, McGill University, ISMIR Board members, volunteers, and the many reviewers and meta-reviewers from the program committee.

We would also like to thank our funder and sponsors, whose contributions made this conference possible:

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We would like to thank the sponsors that explicitly chose to sponsor WiMIR, its grants, and its initiatives:

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Last, but not least, ISMIR 2020 would not have been possible without the exceptional contributions of our community in response to our call for participation. The biggest acknowledgment goes to you, the presenters and the participants.

Julie Cumming

Jin Ha Lee

Brian McFee

Markus Schedl

Scientific Program Chairs

Ichiro Fujinaga

Audrey Laplante

General Chairs