Preface

It is our great pleasure to welcome you to the 17th Conference of the International Society for Music Information Retrieval (ISMIR 2016). The annual ISMIR conference is the world's leading research forum on processing, analyzing, searching, organizing, and accessing music-related data. This year's conference, which takes place in New York City, USA, from August 7 to 11, 2016, is organized by New York University and Columbia University.

The present volume contains the complete manuscripts of all the peer-reviewed papers presented at ISMIR 2016. A total of 287 submissions were received before the deadline, out of which 238 complete and well-formatted papers entered the review process. Special care was taken to assemble an experienced and interdisciplinary review panel including people from many different institutions worldwide. As in previous years, the reviews were double-blinded (i.e., both the authors and the reviewers were anonymous) with a two-tier review model involving a pool of 283 reviewers, including a program committee of 59 members. Each paper was assigned to a PC member and three reviewers. Reviewer assignments were based on topic preferences and PC member assignments. After the review phase, PC members and reviewers entered a discussion phase aiming to homogenize acceptance vs. rejection decisions.

In 2015, the size of the program committee was increased substantially, and we continued using this structure, with 59 program committee members this year. Taking care of four submissions on average, the PC members were asked to adopt an active role in the review process by conducting an intensive discussion phase with the other reviewers and by providing a detailed meta-review. Final acceptance decisions were based on 955 reviews and meta-reviews. From the 238 reviewed papers, 113 papers were accepted resulting in an acceptance rate of 47.5%. The table shown on the next page summarizes the ISMIR publication statistics over its history.

The mode of presentation of the papers was determined after the accept/reject decisions and has no relation to the quality of the papers or to the number of pages allotted in the proceedings. From the 113 contributions, 25 papers were chosen for oral presentation based on the topic and broad appeal of the work, whereas the other 88 were chosen for poster presentation. Oral presentations have a 20-minute slot (including setup and questions/answers from the audience) whereas poster presentations are done in two sessions per day for a total of 3 hours, the same posters being presented in the morning and in the afternoon of a given conference day.

The ISMIR 2016 conference runs for a 5-day period. The selected submissions are presented over a period of 3.5 days, preceded by a day of tutorials and followed by half a day of late-breaking/demo & unconference sessions. Moreover, this year the conference offers four satellite events before and after the main conference: The ISMIR Think Tank, Hacking on Music and Audio Research (HAMR), as well as workshops on Cognitively Based Music Informatics Research (CogMIR), and Digital Libraries for Musicology (DLfM). We believe this is an exciting and engaging program reflecting the breadth and depth of activities across our community.

Year	Location	Oral	Poster	Total Papers	Total Pages	Total Authors	Unique Authors	Pages/ Paper	Authors/ Paper	Unique Authors/ Paper
2000	Plymouth	19	16	35	155	68	63	4.4	1.9	1.8
2001	Indiana	25	16	41	222	100	86	5.4	2.4	2.1
2002	Paris	35	22	57	300	129	117	5.3	2.3	2.1
2003	Baltimore	26	24	50	209	132	111	4.2	2.6	2.2
2004	Barcelona	61	44	105	582	252	214	5.5	2.4	2
2005	London	57	57	114	697	316	233	6.1	2.8	2
2006	Victoria	59	36	95	397	246	198	4.2	2.6	2.1
2007	Vienna	62	65	127	486	361	267	3.8	2.8	2.1
2008	Philadelphia	24	105	105	630	296	253	6	2.8	2.4
2009	Kobe	38	85	123	729	375	292	5.9	3	2.4
2010	Utrecht	24	86	110	656	314	263	6	2.	2.4
2011	Miami	36	97	133	792	395	322	6	3	2.4
2012	Porto	36	65	101	606	324	264	6	3.2	2.6
2013	Curitiba	31	67	98	587	395	236	5.9	3	2.4
2014	Taipei	33	73	106	635	343	271	6	3.2	2.6
2015	Málaga	24	90	114	792	370	296	7	3.2	2.6
2016	**New York**	**25**	**88**	**113**	**781**	**341**	**270**	**6.9**	**3.0**	**2.4**

Tutorials

Six tutorials take place on Sunday, providing a good balance between culture and technology. Three 3‑hour tutorials are presented in parallel on Sunday morning, and three in parallel on Sunday afternoon.

Morning sessions:
- Tutorial 1: Jazz Solo Analysis between Music Information Retrieval, Music Psychology, and Jazz Research (Jakob Abeßer, Klaus Frieler, Wolf-Georg Zaddach)
- Tutorial 2: Music Information Retrieval: Overview, Recent Developments and Future Challenges (Emilia Gómez, Markus Schedl, Xavier Serra, Xiao Hu)
- Tutorial 3: Why is Studio Production Interesting? (Emmanuel Deruty, François Pachet)

Afternoon sessions:
- Tutorial 4: Introduction to EEG Decoding for Music Information Retrieval Research (Sebastian Stober, Blair Kaneshiro)
- Tutorial 5: Natural Language Processing for MIR (Sergio Oramas, Luis Espinosa-Anke, Shuo Zhang, Horacio Saggion)
- Tutorial 6: Why Hip-Hop is Interesting (Jan Van Balen, Ethan Hein, Dan Brown)

Keynote Speakers and Industry Panel

We are honored to have two distinguished keynote speakers:

- Barbara Haws, Archivist and Historian, New York Philharmonic, presenting "The New York Philharmonic Leon Levy Digital Archives: An Integrated View of Performance Since 1842"
- Beth Logan, PhD, VP, Optimization, DataXu, presenting "Is Machine Learning Enough?"

And a panel discussion moderated by Eric Humphrey of Spotify on the future of the music industry --- spanning creation, distribution, and consumption --- and the role that intelligent information technologies will play in that world. The panel consists of four distinguished members of industry:

- Liv Buli -- Data Journalist, Pandora / NextBigSound
- Alex Kolundzija -- Head of Web Platforms, ROLI
- Jim Lucchese -- Head of Creator Business, Spotify
- Kristin Thomson -- Co-director of Artist Revenue Streams, Future of Music Coalition

Evaluation and MIREX

Evaluation remains an important issue for the community and its discussion will be, as in previous years, an integral part of ISMIR: MIREX-16 participants will present posters of their work during the Late Breaking Demo session, and we will feature a town-hall style, plenary discussion on the topic of evaluation. For the town hall, participants are invited to submit and vote on topics for discussion through an online forum, and discussion will be open to all in attendance.

Late-Breaking/Demo & Unconference

Thursday afternoon is dedicated to late-breaking papers and MIR system demonstrations. Abstracts for these presentations are available online. Moreover, as in previous years, we have a special "unconference" session in which participants break up into smaller groups to discuss MIR issues of particular interest. This is an informal and informative opportunity to get to know peers and colleagues from all around the world.

Satellite Events

ISMIR 2016 has expanded its offering of satellite events to four, emphasizing two very important themes: the bridge between academia and industry and diversity in our community.

The **ThinkTank** is a free event organized in partnership with RealIndustry for invited graduate students in MIR and Media Technology to provide opportunities to interact with industry. It aims to expose those students who are interested in a future career outside of academia to the challenges and concepts that arise in industrial and entrepreneurial settings.

Hacking on Audio and Music Research (HAMR) is an event series which applies the hackathon model to the development of new techniques for analyzing, processing, and synthesizing audio and music signals. This is in contrast to traditional hackathons and hack days, which generally emphasize prototyping commercial applications, but have proven to be an effective way for entrepreneurs and hobbyists to spend a concentrated period of time doing preliminary work on a new project.

The sixth annual **CogMIR (Cognitively based Music Informatics Research)** seminar will be collocated with ISMIR 2016. CogMIR aims to address the need for highlighting empirically derived methods based on human cognition that inform the field of music informatics and music information retrieval and covers topics such as music similarity, music emotion, music analysis and generation, music information retrieval, and computational modeling.

The **Digital Libraries for Musicology (DLfM)** workshop presents a venue specifically for those working on, and with, Digital Library systems and content in the domain of music and musicology. This includes bibliographic and metadata for music, intersections with music Linked Data, and the challenges of working with the multiple representations of music across large-scale digital collections such as the Internet Archive and HathiTrust.

WiMIR

Women in MIR (WiMIR) is a group of people in the MIR community dedicated to promoting the role of, and increasing opportunities for, women in the field. Participants meet to network, share information, and discuss in an informal setting the goal of building a community that supports women – and more broadly, diversity – in the field of MIR.

WiMIR has held annual meetings at the ISMIR conference since 2012, garnering a high turnout of both female and male attendees. For the first time in 2016, WiMIR has organized a mentoring program connecting female students, postdocs, and early-stage researchers to more senior females and male allies in the field, and has also received substantial financial support which enables more female researchers to attend the ISMIR conference.

Social Events

In addition to the academic focus of ISMIR, we have aimed to provide a number of unique social events. The social program provides participants with an opportunity to relax after meetings, to experience New York City, and to network with other ISMIR participants. The social program includes:

- Sunday, August 7, Welcome reception at Houston Hall, a massive beer hall in NYC's West Village specializing in local craft beers.
- Tuesday, August 9: ISMIR 2016 Pandora jam session at DROM, an eclectic and vibrant music venue in the East Village, well known for introducing new talent to NYC's live music scene.
- Wednesday August 10: Banquet dinner at Brooklyn Bowl, one of the hippest venues in the city, famous for live music, bowling lanes, fried chicken and a fun atmosphere.

Host city

New York is the largest city in the US, and one of the most iconic urban areas in the world. It boasts one of the most vibrant music scenes to be found anywhere in the world, as home to landmark institutions such as Carnegie Hall, the Blue Note, The New York Philharmonic, Broadway and Juilliard. It is the birthplace of styles as diverse as hiphop, salsa, bebop, disco and punk rock, and serves as the base of an impressive array of major artists, studios and record labels.

Recently it has experienced a boom in music technology activity and entrepreneurship including presence from companies such as Google/Songza, Spotify/Echonest, Pandora, Shazam, and a growing list of music technology startups; all of which complements the already extensive network of more traditional music businesses and services. It is centrally located in the northeastern United States, which includes a critical mass of MIR laboratories and researchers, both in industry and academia.

The conference venues are centrally located in the historic Greenwich Village neighborhood of lower Manhattan, which is rich with dining and entertainment options. No less than 700 restaurants and 400 bars are listed within a 15 minute walk from the venue and other local attractions including famous Jazz clubs such as Blue Note and the Village Vanguard.

Acknowledgments

We are very proud to present to you the proceedings of ISMIR 2016. The conference program was made possible thanks to the hard work of many people including the members of the organizing committee, the many reviewers and meta-reviewers from the program committee, as well as the leadership and administrative staff of Columbia University and NYU. Special thanks go to this year's partners:

- Diamond Partners:
  - **Amazon Music**
  - Bose Corporation
  - Gracenote
  - **National Science Foundation, via award IIS-1646882**
  - Pandora
  - Smule
  - Spotify, Ltd
  - Steinberg Media Technologies GmbH

- Platinum Partners:
  - Google, Inc
  - **Harmonix Music Systems**

- Gold Partners:
  - ACRCloud - Automatic Content Recognition Cloud Service
  - Native Instruments GmbH
  - **Yandex**

- Silver Partners:
  - Shazam

Last, but not least, the ISMIR program is possible only thanks to the excellent contributions of our community in response to our call for participation. The biggest acknowledgment goes to you, the authors, researchers and participants of this conference. We wish you a productive and memorable stay in New York City.

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Juan Pablo Bello
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General Chairs, ISMIR 2016