



148TH CONVENTION “VIRTUAL VIENNA” June 2–5, 2020

The Audio Engineering Society held its first ever online Convention, AES Virtual Vienna, June 2–5. The year 2020 began with traditional planning and development processes well underway for an in-person Vienna Convention. Once it was determined that the Covid-19 pandemic would make an in-person Vienna Convention impossible, the planning team, led by Co-Chairs Piotr Majdak and current Past President Nadja Wallaszkovits, moved the dates to a week later than originally planned, allowing just six short weeks to transform the Convention into an online event. The Herculean efforts of the 148th AES International Convention Committee resulted in a successful—and even profitable—AES European Convention.

With the extraordinary online event logistics support of a Virtual Platform Task Force, led by AES Director/VP Alex Kosiorek and Treasurer Glenn Lorbecki, the virtual event platform company Cadmium was selected to host the core of the Convention. AES Virtual Vienna featured nine hours daily filled with scheduled streaming content, with two independent streaming channels available on the final two days. Attendees could post questions during and following each streaming session; presenters responded in realtime following streamed presentations. Q&A text dialog was available on all sessions. Convention paper, poster, tutorial, and additional Technical Program presentations were available to registered attendees on-demand during the Convention and remained available for the rest of the month of June. The scheduled streaming presentations were added to the on-demand library after airing. Additional content, such as the popular student critique sessions, were held on the Zoom platform and portions of the content were available through the AES YouTube channel. AES Virtual Vienna content will be available soon via the members-only AES Live: Videos platform and the AES E-Library.

All Access registration for AES Virtual Vienna was available for just \$50 for AES members with additional discounts available for Student Members. The non-member rate of \$175 included a year of membership. The total Convention registration of 1413 participants included 179 new members.

AES Virtual Vienna offered 80-plus hours of scheduled streaming content along with a slate of over 100 on-demand Paper, Poster, and Engineering Brief sessions. In addition to providing support for the Convention, AES Virtual Vienna Convention sponsors, including Platinum Partner Genelec, Silver Partners Sound Solutions International and USound, along with sponsor Focusrite Pro, added to the Convention's instructional, educational, and informational content.

AES Virtual Vienna participants took advantage of the on-demand content to sample and

BEST PAPER AWARDS

Winners of the *Journal of the Audio Engineering Society* Best Paper Award for 2019 and the AES Virtual Vienna Convention Best Student Paper Award were presented during the Opening Ceremony of the AES Virtual Vienna Convention.

The 2019 *Journal of the Audio Engineering Society* Best Paper Award was presented by JAES Editor Bozena Kostek and was awarded to Benoit Alary, Archontis Politis, Sebastian Schlecht, and Vesa Välimäki for their paper “Directional Feedback Delay Network.” The paper can be found in the JAES October 2019 issue or, as an Open Access document, it can be downloaded at aes.org/e-lib/download.cfm/20693.pdf?ID=20693.

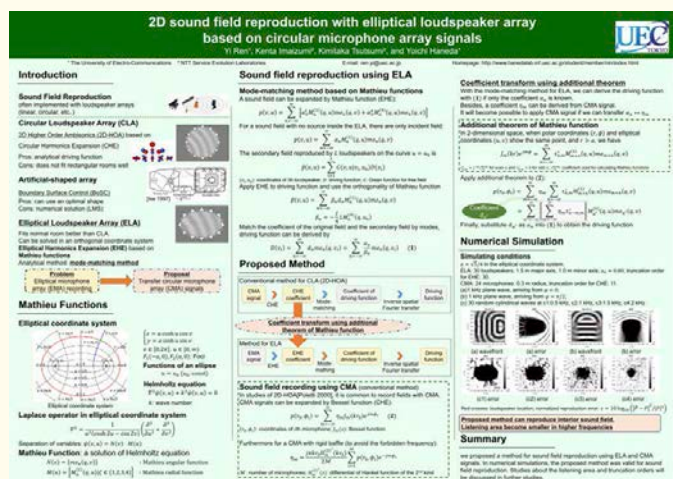
The Best Student Paper Award, submitted to AES Virtual Vienna and peer-reviewed, was presented by AES Virtual Vienna Papers Co-chair Areti Andreopoulou and was awarded to Annika Neidhardt and Boris Reif for their paper “Minimum BRIR Grid Resolution for Interactive Position Changes in Dynamic Binaural Synthesis.”



(Top, L–R) Benoit Alary, Archontis Politis, (middle, L–R) Sebastian Schlecht, Vesa Välimäki, (bottom, L–R) Annika Neidhardt, Boris Reif



Thomas Lund (above) and Susan Rogers (below)



43 ePoster sessions garnered 6,159 views, with the Poster session "2D Sound Field Reproduction with Elliptical Loudspeaker Array based on Circular Microphone" getting the most views.



AES President Agnieszka Roginska addresses AES Virtual Vienna attendees during the Convention's Opening Ceremony on June 2, 2020.

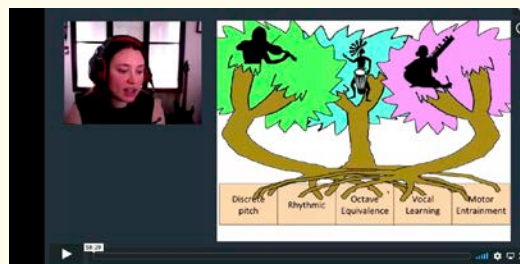
revisit the Technical Program content, as evidence by the Thomas Lund and Susan Rogers session "Active Sensing and Slow Listening" garnering the most views with 3,139 visits (out of a Convention total of 19,319 session views). Attendees were also able to mark sessions as "favorites" with 12,190 votes cast across the Technical Program.

KEYNOTES AND HEYSER PRESENTATIONS

The Heyser Presentation—an online adaptation of the AES Technical Council's Heyser Lecture series that serves as a highlight of each AES convention—was delivered on the opening day of AES Virtual Vienna by Francis Rumsey under the title "Sound Quality in the Era of Interaction and Extended Reality." Each of the subsequent three days of the Convention had a keynote presentation. Marisa Hoeschele offered the keynote address "Audio from a Biological Perspective," with "Try Ambisonics, It's Better Than Ever!" presented by Franz Zotter, and Jamie Angus delivering the final keynote of the Convention, titled "Dicing With Audio."



Marisa Hoeschele discusses audio from a biological perspective in her keynote address



Keynote Lecture: Audio from a Biological Perspective

AES AWARDS

AES Awards for distinguished achievement in the field of audio and service to the Society were presented during the Opening Ceremony by David Scheirman, an AES Past President and current Awards Committee Chair, with remarks from AES Virtual Vienna Co-chairs Piotr Majdak and Nadja Wallaszkovits and AES President Agnieszka Roginska.

The **Board of Governors Award**, given for outstanding contributions to the Audio Engineering Society, has been presented to:

Enda Bates, in recognition of co-chairing the 146th AES Convention in Dublin

Peter Chapman, in recognition of co-chairing the 2017 International AES Conference on Sound Reinforcement

Ben Kok, in recognition of co-chairing the 146th AES Convention in Dublin

Damian Murphy, in recognition of co-chairing the 2019 AES International Conference on Immersive and Interactive Audio

Maryam Safi, in recognition of exceptional leadership of the AES Student Delegate Assembly from 2017–2019



Recipients of the 2020 AES Fellowship Award were announced on June 2, 2020, during the Opening Ceremony of the AES Virtual Vienna Convention. Shown, Clockwise from top left: Filippo Maria Fazi, Heather Lane, Al Schmitt and Ingemar Ohlsson.

Bob Schulein (posthumously), in recognition of co-chairing the 2018 International AES Conference on Hearing Disorders

The **Fellowship Award**, given to a member who has rendered conspicuous service, or is recognized to have made a valuable contribution to the advancement in or dissemination of knowledge of audio engineering or in the promotion of its application in practice, has been presented to:

Filippo Maria Fazi, for significant contributions to acoustics and sound field reproduction

Heather Lane, in recognition of over 40 years of service to the AES, including 33 years as Administrator of the British Section

Ingemar Ohlsson, for a lifetime of outstanding contributions to the development of the Swedish audio industry

Al Schmitt, in recognition of his extraordinary career of musical creation, influencing generations of recording engineers, and making a lasting musical imprint on the world

STUDENT COMPETITION WINNERS

The Student Recording and Design Competitions held during AES Virtual Vienna attracted the most entries ever for an AES Convention, as the online nature of the convention allowed students to fulfill the mandatory convention attendance requirement from anywhere in the world. Interviews with the winning students are being gathered at www.aes.org/students/. The winning projects are:

Student Recording Competition

Category 1 – Audio:

Sub-Category 1 – Traditional Acoustic:

GOLD AWARD

Kseniya Kawko
Hochschule für Musik Detmold

SILVER AWARD

Stefanos Ioannou
HfM Detmold

BRONZE AWARD

Daniel Bevc
McGill University

Sub-Category 2 – Traditional Studio:

GOLD AWARD

Daniela Pardo Quintana
McGill University

SILVER AWARD

Alex Bohn
McGill University

SILVER AWARD

Andre St-Denis
McGill University

Sub-Category 3 – Modern Studio:

GOLD AWARD

Damian Koszewski
Gdansk University of Technology

SILVER AWARD

Stefan Damian
CINETic/UNATC 'I.L. Caragiale'

BRONZE AWARD

Jannis Lehnert
RSH/HS Düsseldorf



Stefan Damian

BRONZE AWARD

Sascha Etezazi
Erich-Thienhaus-Institut - HfM Detmold

Mikołaj Tyrakowski
The Feliks Nowowiejski Academy of Music

Category 3 – Remix:

BRONZE AWARD

Victor Manuel Espinosa Martinez
Universidad de las Artes

Joris Fernandez
Abbey Road Institute Paris

Alla Evdokimova
Royal Conservatoire, The Hague

Category 4 – Immersive:

GOLD AWARD

Jannis Lehnert
RSH/HS Düsseldorf

SILVER AWARD

Kseniya Kawko
Hochschule für Musik Detmold

Johannes Ott
Hochschule für angewandte Wissenschaften Hamburg

Student Design Competition

GOLD AWARD

Felix Holzmüller and Hannes Herrmann
Graz University of Technology; University of Music and Performing Arts Graz

Martin Reus
Fachhochschule Salzburg

BRONZE AWARD

Piotr Cieslik and Karol Nowakowski
AGH University of Science and Technology, Cracow



Daniela Pardo Quintana

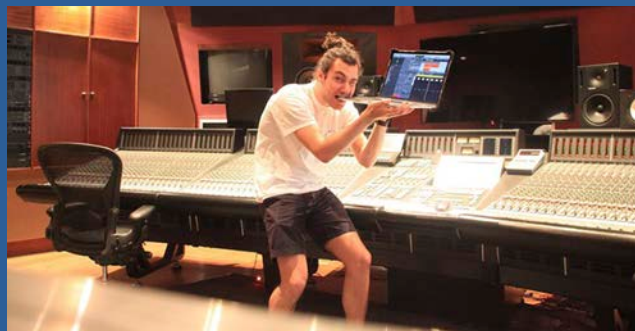
Category 2 – Sound for Visual Media:

GOLD AWARD

Diana Kuls
The Fryderyk Chopin University of Music

SILVER AWARD

Agata Lenarczyk
The Fryderyk Chopin University of Music



Joris Fernandez

THEY CAME FROM FAR AND WIDE

Of the 59 Countries represented in the registration for AES Virtual Vienna, the top ten were:

1. United States: 441 (31.5%)
2. Germany: 147 (10.5%)
3. United Kingdom: 131 (9.3%)
4. Japan: 87 (6.2%)
5. Canada: 66 (4.7%)
6. Austria: 57 (4%)
7. Poland: 41 (2.9%)
8. China: 30 (2.1%)
9. France: 28 (2%)
10. Italy: 25 (1.7%)

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Online Q&A with Helmut Wittek



Online Technical Tour of the Vienna Symphonic Library with Paul Kopf

The AES Virtual Vienna online Convention had some advantages over the traditional physical events. Sonically, all participants had the best seat in the house. Content could be revisited and replayed for weeks. No longer did registrants have to choose just one of multiple sessions held in parallel. Instead participants could choose what to watch live and what to watch later. Individuals that find themselves so busy with meetings and other ancillary activities during in-person Conventions could attend all the sessions they cared to at their own convenience.

148TH CONVENTION COMMITTEE

The AES would like to thank all of the committee members that volunteered their time to develop and adapt the AES Virtual Vienna program:

- Piotr Majdak (Convention Co-Chair)
 Nadja Wallaszkovits (Convention Co-Chair)
 Alex Kosiorek (Technical Co-Chair, Content Aggregator and Editor)
 Thomas Gmeiner (Facilities Co-Chair)
 Michael Mihocic (Facilities Co-Chair)
 Thomas Sporer (Papers Co-Chair)
 Areti Andreopoulou (Papers Co-Chair)
 Matthias Frank (Workshops & Tutorials Co-Chair)
 Ana Monte (Workshops & Tutorials Co-Chair)
 Daniel Deboy (Workshops & Tutorials Co-Chair)
 Michael Iber (Technical Tours Co-Chair)
 Andreas Büchele (Technical Tours Co-Chair)
 Katharina Pollack (Student Volunteers Coordinator)
 Magdalena Piotrowska (Education Chair)



What registrants said they missed most from the attempt to virtualize a traditional AES convention experience were the social and networking opportunities that come from thousands of attendees physically converging on a given venue. As the 149th AES Convention Committee has now also been forced to focus on an online-only event, lessons learned from AES Virtual Vienna are being applied to the AES Fall 2020 Convention. Participant feedback is helping define an even better online experience. Join us—registration is open now at www.aesshow.com.

Editors note: papers from this convention can be downloaded from the AES E-Library at www.aes.org/e-lib.