



AES @NAMM®

PRO SOUND SYMPOSIUM:
LIVE & STUDIO

Anaheim, California USA

JANUARY 24 – 27, 2019

EVENT REPORT



Symposium Supporters





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Technical Content

Following its successful premiere at last year's NAMM Show in Anaheim, CA, the AES@NAMM Pro Sound Symposium, Live & Studio returned for 2019. Held concurrently with The 2019 NAMM Show, January 24–28, in the Anaheim Hilton Hotel's NAMM U Education Center, adjacent to the pro-audio exhibit hall, the Symposium offered a combination of hands-on training, technical presentations, and expert presenters and panelists for four days of in-depth onsite experience in the fields of sound reinforcement and recording studio technology.

"AES@NAMM was again a successful and inspiring event," said AES Past President David Scheirman. "With over 200 dynamic sessions available, attendees were able to follow studio production and live sound reinforcement signal paths from mic to mixer and DAW, through hardware and software DSP and control, and on through digital networks to amps and speakers. Many thanks are due to the expert presenters and hands-on trainers gathered together by our program team and our Symposium Supporters. Industry career professionals and entry-level attendees alike left the event ready to implement practical knowledge uniquely provided by AES@NAMM 2019."

The AES@NAMM program was again divided into a series of training academies and related technical sessions, creating a unique learning format designed to appeal to and expand the knowledge of both audio professionals and aspiring audio pros. Reprising their anchor positions in the AES@NAMM 2019 were the introductory year's Line Array Loudspeaker System Academy, Live Mixing Console Academy, Entertainment Wireless Academy, In-Ear Monitoring Academy, Control Room Academy, Main Stage: Studio, and Main Stage: Live, along with a series of Sound System Measurement & Optimization and Audio Science sessions.

New for AES@NAMM 2019 were the Microphone Academy: Studio & Live, the Digital Audio Networking Academy, and sessions on Sound for Houses of Worship.

THE EVENT PLANNING TEAM

Managing the AES@NAMM 2019 program and content contributors was Director, Program, & Content Mark Frink, who also served as Manager, Live Sound Content. Additional content contributions were curated by Manager, Studio Tech-

nology sessions, Anthony Shultz, who coordinated and managed the Studio Academy and Control Room Academy sessions; Manager, Scientific & Technical Content, Charlie Hughes whose responsibilities included the Audio Science and Sound System Measurement & Optimization programs, and was also a presenter; Manager, Digital Audio Networking Academy, Bob Lee, who also served as a presenter; and Manager, Studio Recording Content, Bobby Owsinski, who hosted the Main Stage: Studio sessions. Contributor Bing Lin served as a content creator and presenter for a limited number of Mandarin Chinese language sessions, with Contributor Juan de Dios Martin performing a similar role for a limited number of Spanish language sessions.

Providing leadership for the AES@NAMM 2019 Event Planning Team (EPT) were event co-directors, Executive Chairman Michael MacDonald and AES Executive Committee Liaison David Scheirman. MacDonald was responsible for key industry contacts and shared NAMM management contact with Scheirman. AES Treasurer Richard Wollrich served as Manager, Registrations, coordinating advance and onsite registration and serving as a link with AES's headquarters staff. Event treasurer and overseeing the business aspects of the Symposium was Jonathan Novick, Manager, Business and Finance. AES Secretary Valerie Tyler organized EPT conferencing, action items, and program data entry as Manager, Project Communications. Greg Kadorian handled site requirements and interface with the venue and NAMM operations as Manager, Facilities and Technical Support. Serving as NAMM Sales and Manufacturers Liaison, AES's International Sales Manager Graham Kirk coordinated AES@NAMM and NAMM exhibiting company relationships, while Jane Byer served as an assisting director and interfaced with AES@NAMM supporters under the title Manager, Symposium Supporter Resources. Interfacing with student groups, faculty advisors, and the AES Education Committee, along with onsite volunteer scheduling, was Keith Elliott, Manager, Volunteer Staff. Coordination with NAMM's marketing team, coordination with AES PR agent Clyne Media, publicity, promotion, AES website content and interface with the *JAES* was tasked to Frank Wells, Manager, Marketing and Promotions.

THE AES@NAMM 2019 PROGRAM

“AES@NAMM offered attendees an opportunity to expand their knowledge and skills in an intimate classroom setting,” noted Frink. “The presenters for the second annual AES@NAMM Pro Sound Symposium: Live and Studio are some of the best minds in the business, and the program content is tailored to take maximum advantage of their knowledge and experience.” That list of expert presenters included live sound professionals Mike Bangs, Dave Rat, Dave Shadoan, and Ike Zimbel and studio production professionals Andrew Scheps, Sylvia Massy, Gavin Lurssen, and Reuben Cohen. Veteran live sound engineer Robert Scovill hosted the Main Stage: Live sessions with topics spanning live recording, the business of live sound, audio production for the Grammy broadcasts and various gear-specific presentations. Studio engineer and author Bobby Owsinski hosted the Main Stage: Studio sessions, bringing together some of the brightest minds in audio as they lent their personal insight and expertise in the popular series. Mastering, monitoring and metadata were among the recording topics covered, while AES Regions and Sections Chair Anthony Schultz led sessions addressing recording education and careers.

Miking piano, double miking, vocal mic selection, and festival sound input list management were covered in the Microphone Academy sessions along with insights on modeling microphones with specialists from Townsend Labs. Audio restoration, acoustics and room tuning, studio monitor loudspeakers, interfaces, advanced processing techniques and hardware design were but a few of the topics covered variously in the Control Room Academy and Audio Science sessions.

Hosted by Charlie Hughes (Excelsior Audio), the Sound System Measurement & Optimization classes featured Hughes own subwoofer array and alignment sessions, measurement mic selection, and multi-mic applications, as well as workshops with AFMG’s Systune, Rational Acoustics Smaart version 8, and Smaart

DI and Studio Six Digital’s Audio Tools. AES Standards Committee Chair Bruce Olson was a featured presenter in the track, along with Rational Acoustics experts Jamie Anderson and Chris Tsanjoures, all of whom joined with Hughes for a career panel discussion.

“Attendance for the Measurement & Optimization sessions was up significantly from last year,” shared Hughes. “There were quite a range of experience levels, from novice to veteran, with many good questions from all. The Audio Science sessions had wide range of very interesting presentations. Blair McNair gave a couple of talks on loudspeaker coverage issues and intended/unintended consequences. Also, of note, was a demo from Rick Silva on his company’s audio-source separation and spectral editing software.”

Hosted by wireless touring professional Ike Zimbel, Entertainment Wireless Academy sessions included his discussions with Alteros’ Jackie Green and Lectrosonics’ Karl Winkler providing insights into the changing RF landscape and the impact of those changes on implementing wireless plans for live event and broadcast productions. Alternate spectrum options were also discussed. Zimbel also led sessions on Professional Wireless Systems antenna types and PWS’ Intermodulation Analysis System (IAS)—a mainstay tool in major sporting event broadcast wireless management. Training sessions in the Event Wireless Academy sessions included systems from Symposium Supporters Alteros, Lectrosonics, and Shure.

With perspectives gained from his experiences as a touring monitor engineer, Frink served as both host and presenter in the In-Ear Monitor Academy. In-ear monitor (IEM) fundamentals were covered, including best practices. The physiology of hearing and hearing conservation relative to IEM use were discussed, with input from Dr. Michael Santucci of Sensaphonics. Wireless vs. wired personal monitoring, personal monitor mixing, and immersive binaural monitoring were covered, with participation and support from Lectrosonics, MyMix, and Ultimate Ears.



Main stage: Live host Robert Scovill (right) discusses major event live broadcast audio with Michael Abbott, who shared lessons learned from decades of overseeing audio for major live broadcast events such as the Oscars, Grammys, ESPYS, and CMA award shows.



AES Regions and Sections Chair Anthony Schultz leads a studio careers panel discussion. Schultz, who is owner/operator of Big T Productions, (left) was joined by Keith Munson, manager of East West Studios in L.A. (middle left); Eli Smith (middle right), manager and engineer at Clear Lake Recording Studios, Hollywood; and music producer/sound supervisor/educator Medhi Hassine (right).



Live sound pro Mike Bangs leads Allen & Heath training in a Live Mixing Console Academy session.



"Mastering for the Streaming Age" was the topic of a Main Stage: Studio session featuring mastering engineers Gavin Lurssen (left) and Reuben Cohen (right).

Audio over IP is rapidly becoming the audio distribution methodology of choice on the stage and in the studio. Digital Audio Networking Academy sessions, organized by former AES Secretary Bob Lee of QSC, covered fundamental digital networking technology, protocols, and applications. In addition, Audinate held Dante certification sessions within the AES@NAMM suite of classrooms.

The hands-on training opportunities integral to the AES@NAMM program vision were most evident in the Live Mixing Console Academy and the Line Array Academy. Allen & Heath's Live Mixing Console sessions featured certification and advanced application classes along with specialized applications including house of worship and festival use of dLive consoles. Yamaha Commercial Audio Systems offered core training, advanced applications, and mixing labs on both the CL Series and RIVAGE PM10 consoles.

The Line Array Academy sessions were split into two parts. Classroom sessions covered system components, configuration, and deployment and included predictive performance modeling. Companion sessions in the Anaheim Convention Center courtyard between its B & C halls rigged and flew systems from ground support towers and implemented software-based configurations and tested results. Participating manufacturers were Bose Professional, JBL Professional, and VUE audiotechnik.

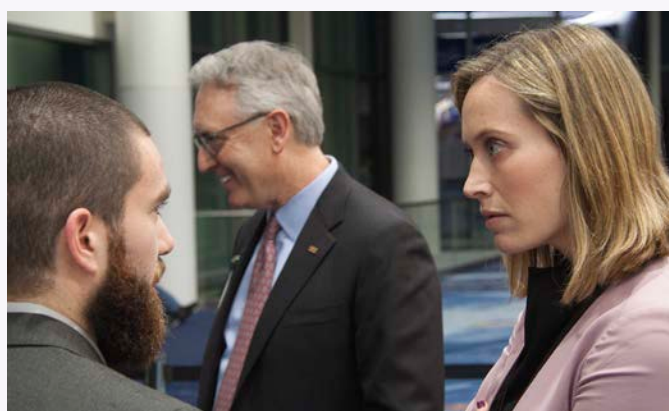
SOCIETY OUTREACH

In coordination with the Society's Membership and Regions & Sections Committee Chairs, and in alignment with the Society's ongoing series of membership drive booths staged at numerous pro audio events in the USA and also recently in China, an Audio Engineering Society membership-drive booth was in place for The 2019 NAMM Show in the convention center lobby nearest the NAMM pro audio exhibitors. Hosted by new VP Western Region US/Canada Alex Kosiorek, the booth was overseen by a group of AES west-coast member volunteers including AES Los Angeles Section Chair Brian Seagrave. Booth staffing was assisted by Jessica Livingston, Chair, AES San Francisco Section.

In addition to the nearly 200 presentations, training, and education sessions, event attendees were also able to participate in evening social events that included a Diversity & Inclusion Mixer hosted by Jay Henry, a Student Networking Mixer hosted by Ian Corbett, and an AES International Members' reception that enabled more than one hundred AES members and guests from the West Coast region and beyond to socialize, enjoy refreshments, and meet the Society's new Executive Director Colleen Harper.



An Audio Engineering Society membership-drive booth was located in the entry of the Anaheim Convention Center's "Pro Audio" North Hall during The 2019 NAMM Show. Hosted by new VP Western Region US/Canada Alex Kosiorek (right), the booth was overseen by a group of AES west-coast member volunteers including AES Los Angeles Section Chair Brian Seagrave (left).



AES Executive Director Colleen Harper (right) listens as Cal Poly Student Section Chair Nathan Hatch (left) shares plans for an event at his school. NAMM President and CEO Joe Lamond is shown in the background.

INDUSTRY AND NAMM SUPPORT & ATTENDEES

The extensive list of Sound Symposium Supporters—manufacturers providing specialist presenters and equipment for training during AES@NAMM 2019—including leading brands Allen & Heath, Alteros, Audinate, Auralex Acoustics, Bose Professional, d&b audiotechnik, DPA Microphones, iSEMcon, iZotope, JBL Professional, KLANG, Lectrosonics, myMix, Powersoft, QSC, Rational Acoustics, RME, Royer Labs, SCHOEPS Microphones, Sensaphonics Hearing Conservation, Shure, Studio Six Digital, Townsend Labs, VUE audiotechnik, Ultimate Ears, and Yamaha.

Registration for AES@NAMM was fee-based; online advance registration offered significant savings, with further discounts for AES members. Attendees could register for all four days of AES@NAMM 2019, or for individual days, with separate registration required to ensure seating for the hands-on sessions in the Line Array Loudspeaker System and Live Mixing Console Academies. Attendees came from 38 US states and 21 countries. Fourteen percent of advance registration was from non-USA residents.

While AES@NAMM attendees did not need a NAMM Show badge to participate in AES@NAMM or to access sessions onsite, attendees, AES members, and colleagues desiring to also attend The NAMM Show could obtain a separate NAMM Show Badge at a highly reduced rate through the Audio Engineering Society's spe-



AES VP Western Region US/Canada Alex Kosiorek looks on as NAMM President and CEO Joe Lamond addresses the AES International Membership Reception, hosted by NAMM.

cial arrangement with NAMM. Compared to 2018, near triple the number of individuals took advantage of the opportunity this year. The NAMM (National Association of Music Merchandisers) show has been held annually since 1901. The NAMM Show provides NAMM retail members the opportunity to interface with manufacturers of musical instruments and related hardware and software products to plan the inventory orders for their stores. As professional gear sales have progressively moved into retail channels, The NAMM Show trade floor increasingly includes professional entertainment production gear, accommodated by the expansion of the Anaheim Convention Center which opened its new, two-story North Hall (the "Pro Audio Hall") for The 2018 NAMM Show. The 2019 NAMM Show drew 115,085 attendees and lays claim to being the world's largest trade-only event for the music products, pro audio, and event tech industry.

AES produced AES@NAMM 2019 as a contracted service provider along with other outside organizations providing NAMM U content, including ESTA (Entertainment Services & Technology Association), Timeless Communications (publisher of *FOH & PLSN* magazines), Lighting & Sound America, and A3E. As projected, "a useful net profit has been provided to the Society's treasury," AES Past President and ExCom Liaison David Scheirman



AES Past President, David Scheirman



Mark Frink speaks during the AES@NAMM Diversity & Inclusion mixer.



AES@NAMM Line Array Academy attendees participate in the configuration of a Bose Professional line array.



Live sound veteran Dave Rat, a popular presenter at AES@NAMM, listens to an attendee's question.

reported. While final accounting is still underway, Scheirman noted that "Net profit margin yield percentage is projected to be nearly 40% greater than is traditionally achieved from AES U.S.A. Conventions." AES's current agreement with NAMM will continue the AES@NAMM Pro Sound Symposium through at 2021.

"The educational and networking opportunities created by AES@NAMM gave thousands of show attendees the tools and inspiration needed to succeed in the year ahead," shared NAMM President and CEO Joe Lamond. "After gathering feedback from our debut run last year, I believe AES@NAMM took a big leap forward and we can't wait to see the further developments for the 2020 NAMM Show!"

