

# AES 122<sup>nd</sup> Convention



In the newly expanded European Community, Vienna is more than ever a bridge between western and eastern parts of the region. Its cultural and imperial heritage make it a place of considerable attraction for visitors, and it was to this remarkable city that the Audio Engineering Society returned for the first time since 1992. Held in the well appointed Austria Centre, not far from the city center, the 122nd Convention, chaired by Werner Deutsch and ably assisted by Florian Camerer, vice chair, drew visitors from far and wide to find out about the latest developments in audio engineering. An ambitious scientific program together with an expansive exhibition and numer-

ous additional activities ensured that delegates could spend four full days in Vienna immersed in audio.

## OPENING CEREMONY AND AWARDS PRESENTATION

Welcoming delegates to the 122nd Convention, Roger Furness, AES executive director, reminded the audience about the time 15 years ago when the Society was previously in Vienna for the 92nd Convention, when the new consumer formats MiniDisc and DCC were being compared. In fact, he had been president of the Society that year. "How times have moved on," he said. He explained that three topics

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were being spotlighted at this convention: sound archiving, broadcasting, and live sound. Wieslaw Woszczyk, AES president, expressed his belief that tradition (our strength), innovation (our challenge), and passion were the key ingredients of successful audio engineering. He thanked the convention committee in Vienna for preparing a beautiful convention of which we could all be very proud.

Werner Deutsch explained that he wanted the Vienna convention to be something special. He commented that there had been a change of paradigm from engineering-driven to listener-driven development of audio systems. Engineering limitations were no longer really a problem, ➔

# Opening Ceremonies and Awards



**Roger Furness,**  
AES executive director



**Wieslaw Woszczyk,**  
AES president



**Werner Deutsch,**  
convention chair



**Theresa Leonard,**  
awards chair



**Herman Wilms, right,** receives Distinguished Service Medal from Wieslaw Woszczyk



**Florian Camerer, left,** introduced keynote speaker Helmut Voithl, right, to a large Opening Ceremony audience.



**Gerhard Steinke receives Gold Medal**



**Jörg Wuttke receives Silver Medal**



**Fellowship Award recipients: from left, Claude Cellier, Andrzej Dobrucki, and John Mourjopoulos**



**Ferenc Takacs receives the Board of Governors Award**



**Libor Husnik receives Citation**

but the need to deliver things that listeners want to hear and use is driving our work these days.

Theresa Leonard, Awards Committee chair, announced the Society's awards. She reminded delegates that the Awards Committee is always interested in hearing about members deserving of recognition. Jörg Wuttke, receiving the Silver Medal for outstanding contributions to the development of small diaphragm condenser microphones, microphone electronics, and training of microphone users, thanked the Society for this honor. "Audio engineering is fun," he pointed out, "Science, art, and music are combined and are peaceful enterprises. However," he warned, "high sound pressure levels are dangerous, and taking care of our ears is extremely impor-

tant." Gerhard Steinke received the Gold Medal for outstanding contributions to audio engineering sustained over almost 60 years in the areas of radio and television broadcasting, studio acoustics, sound reinforcement, multichannel sound, and the international standardization of audio. "What a day, my friends," he said, "to receive such an 'Oscar' from friends and colleagues." He also thanked his wife and family for tolerating his passion for audio. Hermann Wilms received the Distinguished Service Medal for over 35 years of service to the Society, in particular for work on European conventions. He said that he was proud to be the first European member to receive this award. He managed 34 conventions and dealt with membership matters in Europe for 25 years. A ➔



Among the authors who presented papers in lecture sessions were, clockwise from top left, Nick Zacharov, Dietrich Schüller, Amélie Marty, Alexander Lindau, Chris Dunn, John Vanderkooy, Jon McClintock, and Michael Beckinger.



The poster sessions at the 122nd drew large crowds, left, throughout the 4 days of the convention. Among the authors who presented technical papers in the poster sessions were, clockwise from top left, David Griesinger, John Vanderkooy, and Ville Pulkki.



standing ovation from the assembled company attested to the Society's respect for his contribution.

A Citation was awarded to Libor Husnik for dedicated service to the Czech section. The Board of Governors Award was presented to Ferenc Takacs for dedicated service and long-term contributions to the AES both as secretary and chair of the Hungarian section. Fellowships were awarded to Claude Cellier for outstanding contributions to the development of high-performance, high-resolution audio workstations, Andrzej Dobrucki for substantial contributions to audio-related science and education, and to John Mourjopoulos for his significant work in the fields of room reverberation analysis, digital speech coding, and perceptual modeling of the auditory system.

Florian Camerer then introduced the keynote speaker, Helmut Voithl, a remarkable documentary and feature film director who had been his teacher and friend for many years. They had spent a year in the Arctic at one point, so they had had to get along well! Voithl said that he felt a lot of emotion in the room during the awards ceremony, and this was right in line with the theme of his address: "Sound and Emotion." Sound design is clearly not only about technical activity but also about artistic activity, he emphasized. In some examples he related from his experience, it had not been pictures that communicated the emotional impact of certain situations, but sound. Action movies often have a very saturated or dense sound design, which is perhaps intended to stop listeners →



Among the 122nd workshops were, clockwise from above, *Audio Quality Evaluation*, from left, Jan Berg, chair, Bill Martens, Garmt Dijksterhuis, Natanya Ford, and Sylvain Choisel; *Platinum Engineers/5.1 Mixing Techniques*, from left, Jeff Wolpert, Ronald Prent, and George Massenburg, chair; *Advanced Techniques for Building Interactive Environments*, from left, Ville Pulkki, Renato Pellegrini, Stefan Bilbao, Lauri Savioja, and Michael Kelly; and *Wanna Feel My LFE and 5.1 Other Questions*, Bosse Ternstrom, left, and Florian Camerer.



Among the experts presenting tutorials at the 122nd were, clockwise from top left, Bill Whitlock, Wolfgang Klippel, and Jeff Levison, who had the crowd on its feet to better hear the height channels in a new 7.1 mix.

from channel hopping. However, this is an unsatisfactory and tiring approach. Documentary film makers often have to try to involve the audience in a story without dialogue. Sound effects and music are often responsible for mediating this task. The affinity between cinematic and musical rhythm is also very important in sound design, and relates the movement in the image (cutting rate, camera movement, subject movement, and such) to that in the sound track. Sound design becomes almost akin to musical composition. All this is only possible if sound design is made a key factor during production, but this does not always happen. The loss of craftsmanship in sound design is enormously regrettable and such craftsmanship has to be fought for, he emphasized.



## EXHIBITION

Organized by Thierry Bergmans, the exhibition floor was filled with stands displaying the latest audio products and systems. Of particular note was a joint venture between Merging Technologies and Smart AV, in the form of the Ramses MSC mixer and editing control surface, which is designed to connect with Merging's Mass Core console mix engine and with its Pyramix editing system. Further developments in the mixer and control-surface market included Euphonix's S5 Fusion digital mixing system and DHD's 52/MX modular mixing console. In a novel departure, Lawo showed a new technology for integrating the world of DAW plug-ins with its large-format mixing console in which the plug-in parameters are imported into the mixing console and can be stored using the console's automation. The system also automatically assigns the audio tie lines that are required. For those on the move with a laptop, Audio Developments showed its AD114 laptop mixer, alongside the AD149 film and drama mixer now with the option of digital outputs. Calrec brought out its new X2 radio console, which can be configured with 6, 12, 18, or 24 faders to allow simple presenter operation. A central screen enables the control of more advanced functions. Enhancing its Dream II console, Fairlight's version 1.1 of its software now enables AAF and AES31 file interchange without the need for file conversion, as well as selectable EQs on a per-channel basis and enhanced automation. Newcomer to the scene, Devil Technologies, launched ➔

a novel control surface for DAWs: the DTR-101, with a touch screen on every channel and modular construction to enable the system to be configured to user requirements.

Pushing forward the all-digital studio, RME (at Synthax Audio booth) launched its first multichannel digital microphone interface, the DMC-842, intended to handle the growing range of digital microphones with AES42 interfaces from companies such as Neumann, Schoeps, and Milab. AKG also released two new analog mics, the C5 and D5 series, designed for durability in vocal applications, as well as the novel MicroMic series of miniature microphones designed for mounting on instruments of different kinds. Aimed at improving musicality, Sennheiser introduced the MKH 8000 studio microphone, based on the original 800 series but now smaller and with a range of stands and accessories, making them suitable for classical music recordings involving TV broadcasts and large audiences. The company also introduced a number of new innovations on the wireless microphone equipment front. At the other end of the signal chain, ADAM Audio was demonstrating its S7A Mk2 loudspeaker system that is intended to combine exceptional power (1500W and 128 dB SPL) with high quality. The company's new subwoofers, the Sub20 and Sub24 were also attracting attention, containing two 12-inch drivers mounted on opposite sides of the cabinet to reduce distortion.

A compact all-in-one hard-disk recording package was shown by Zaxcom, in the shape of the Deva 5.8, which includes eight integral faders, a DVD-RAM, and a Flash media drive. Up to ten tracks of audio can be recorded directly to the Flash drive, and the device also includes eight mic inputs with phantom power and the ability to record to external FireWire drives. Extending the scope of portable systems, Mayah was also showing the Sporty reporter codec, which can deliver audio over a range of networks, including ISDN, WLAN, 3G, and PSTN, as well as recording direct to USB sticks or SD memory cards. This device also sports two new MPEG-4 codecs for the latest compatibility. Rounding off the bill, Sonic Studio introduced a number of its recent developments for the first time in public, including NoNOISE batch processing and version 1.2 of its SoundBlade editing environment.

Complementing the exhibition, Martin Wöhr organized a comprehensive selection of exhibitor seminars for manufacturers to show and discuss their new product releases. These could be attended by anyone with an exhibition pass and included sessions with D.A.V.I.D on Visual Radio, Lawo on networking audio systems, Schoeps on Double MS recording in stereo and surround, and ODEON on room acoustic simulation, among many other offerings. Gisele Clark put together a number of application seminars held on the exhibits floor, with presentations by MIST Technologies, Hearsafe Technologies, and Strategiec among others.

## TECHNICAL PROGRAM

One of the most comprehensive technical programs ever seen at an AES convention was laid out for the benefit of delegates to the 122nd convention. The convention committee had decided to highlight three main themes within the technical program: live sound, broadcasting, and sound archiving.



From left, Werner Deutsch, convention chair, Roger Furness, AES executive director, Stefani Renner, press relations, and Florian Camerer, convention vice chair



Konstantin Ulitsch, convention liaison



Florian Camerer, left, and Karl Petermichl, tutorials, workshops, and broadcast sessions cochairs



Piotr Maydak, facilities vice chair



Philip Treiber, left, and Volker Werner, students events chairs

In addition to a consistently excellent program of technical papers, there were a number of workshops and tutorials organized by the AES technical committees and the convention committee. For example, Hideo Irimajiri and Toru Kamekawa conducted a live study of surround main microphone techniques for classical orchestra during the convention, during which participants could evaluate the techniques and provide listening test data for subsequent analysis. Camerer also chaired a workshop with the provocative title *Wanna Feel My LFE? and 5.1 Other Questions to Confuse Your Girlfriend and Scare Your Grandma*, during which he and Bosse Ternstrom of Swedish Radio discussed surround sound aesthetics and philosophies, as well as “the ultimate place in town for a cold beer.” So that participants could experience surround sound in its various forms, three surround demo rooms had been set up, including one with a 13.1 system with height channels to support the various “with height” events such as Kimio Hamasaki’s workshop on the Monday and a workshop based on a recording of Gra-



Heinrich Pichler, left, and Holger Waubke, papers cochairs



Johannes Sptizbart, posters chair



Martin Wöhr, exhibitor seminars chair



Nadja Wallaszkovits, facilities chair, with Dietrich Schüller



Thierry Bergmans (left), exhibit organization, and Herman Wilms

Gregor Widholm (left), technical tours chair, with group boarding bus for tour of Bösendorfer piano factory



## We thank...122nd Committee

**Werner Deutsch**  
chair

**Florian Camerer**  
vice chair

**Heinrich Pichler and Holger Waubke**  
papers cochairs

**Johannes Sptizbart**  
posters chair

**Florian Camerer and Karl Petermichl**  
tutorials, workshops, and broadcast cochairs

**Philipp Treiber, Volker Werner, and Veit Winkler**  
student events chairs

**Martin Wöhr**  
exhibitor seminars and live sound chair

**Nadja Wallaszkovits**  
facilities chair

**Piotr Maydak**  
facilities vice chair

**Gregor Widholm**  
technical tours chair

**Konstantin Ulitsch**  
convention liaison

ham Blyth's organ concert made in 2+2+2+2 format, chaired by Werner Dabringhaus and Ulrich Vette on Tuesday. Off site, at the University for Music and Performing Arts, there was also a full wavefield synthesis demonstration room in which partners such as Fraunhofer, Sennheiser, Studer, and Merging Technologies offered the comparison of different microphone and mixing concepts for WFS, as well as demos of film, radio drama, and music.

A wide selection of papers were presented in lecture sessions organized by Heinrich Pichler and Holger Waubke, papers cochairs, complemented by a large group of papers presented in poster sessions coordinated by Johannes Sptizbart. Among the topics covered were spatial perception and processing, multichannel sound, and psychoacoustics, perception, and listening tests. The topics of archiving, storage, and restoration—a speciality of local audio expert Dietrich Schüller—were well represented at the 122nd Convention, as were low bit-rate coding, microphones and loudspeakers, and analysis and synthesis of sound. Broadcast

topics were well covered and arranged by Florian Camerer. A large number of papers were presented by research students from different universities around the world, attesting to the vibrant research base in audio engineering.

Tutorials included the popular *Realization of 7.1 Mixes* and *Remapping and Downmixing* presented by Jeff Levison, as well as those devoted to important fundamental topics in audio such as *Sync and Timecode* by Chris Woolf, and *Balanced Interfaces* and *Grounding and Shielding* by Bill Whitlock. The live sound seminars included a Sennheiser event, chaired by Gregor Zielinsky, and a presentation on the sound reinforcement system for the opening celebrations of the Soccer World Cup, by Michael Kennedy and Rudolf Pirc of Neuman & Mueller.

A full listing of the entire program can be found online at <[www.aes.org/events/122/122ndWrapUp.pdf](http://www.aes.org/events/122/122ndWrapUp.pdf)>. An order form with a complete list of the 122nd papers is inserted with this issue. Papers can also be purchased online at <[www.aes.org/publications/preprints](http://www.aes.org/publications/preprints)>.



Gerhard Steinke (center), 122nd Heyser lecturer, receives certificate of appreciation from Jürgen Herre (left), Technical Council vice chair, and Bob Schulein, TC chair.

## STUDENT ACTIVITIES

Thanks to the energetic officers of the Student Delegate Assembly and the very large number of student members that now fills the Society's ranks, the program of education events and student activities was a large component of the convention in Vienna. Coordinated by Philipp Treiber and Volker Werner, the program of student events included recording competitions, a design competition, two meetings of the SDA, as well as the Education Fair, the Education Forum, and a careers fair. The Student Science Spot, organized by the Graz student section, was available for the ongoing presentation of student project work throughout the convention. On the Sunday night a student party was held at one of Vienna's renowned music locations, Club Ost, where the band Vienna Funk Agency performed funk and disco classics. For a complete report on the 122nd student events see Education News on page 702.

## SPECIAL EVENTS

Spicing up the mix, participants in the convention could meet together socially at a number of events such as the mixer party on Saturday night and at the banquet on Sunday night, which was held in the Wappensall at the Wiener Rathauskeller (Vienna Town Hall). As is now

traditional at conventions, Graham Blyth also performed a magnificent organ recital at the Jesuitenkirche (the Jesuit Church) in the city center. This baroque fantasy of a church is home to a new organ rebuilt from a typical Cavaillé-Coll console, in the French Romantic tradition, on which Blyth played entirely appropriate works such as Franck's superb *Trois Pièces* and the Finale from Widor's 6th Symphony. These selections showed off the beautiful range of tone colors available on the instrument.

The incomparable Gerhard Steinke, recipient of the Gold Medal at this convention, was the wholly entertaining Richard C. Heyser Memorial Lecturer, with his talk on "What Is Needed to Have the Audio-Eldorado at Home?" Consisting of a highly condensed tour of his experiences over a life in broadcasting research, much of it in the former East Berlin, Steinke kept his audience captivated with a catalog of inventions and encounters spanning 60 years, with numerous photographs and mementos of those years that had taken him many months to collect together. "A life without music is a mistake," he quoted from Nietzsche, and he proceeded to show how the symbiosis between music and audio was crucial for so many engineers, peppered with jokes and humorous interludes that ensured him a well-deserved ovation at the conclusion.



Mike Edwards giving presentation at AudioTechnica's application seminar. Gisele Clark, inset photo, coordinated the program of application seminars.



At Sunday night's banquet at Wiener Rathauskeller (Vienna City Hall), the AES received a warm welcome from a representative of the mayor and governor of Vienna.

## EDUCATION EVENTS



**1 Student Science Spot:** organized by the Graz Student section, this was the focal point for student activities throughout the convention.



**2 Education Fair:** schools and universities with audio programs offered information to prospective students.

**3 Career/Job Fair:** representatives from Fraunhofer were among the companies providing information on jobs and internships.



**4 Recording Competition Awards:** from left, Mathilde Neubauer of AKG, Jason Corey, Education Committee chair, Thomas Geiger, 1st Place winner in nonclassical surround, and Ainslie Harris, AES student chair for the Europe/International region

**5 Recording Competition Awards:** from left, Maurice Patiste of PMC, Simon Oberender, 1st Place winner, pop/rock stereo, Ainslie Harris, and Jason Corey.

**6 Recording Competition Awards:** from left, Achim Scherner of DTS, Jason Corey, Lenka Mikulova, 1st Place winner, sound for picture, and Ainslie Harris.



The Serbian Student section made a strong showing at the 122nd. Suzana Jakovic, center, is the incoming AES student chair for the Europe/International region. Jose de Oliveira, to the left of Suzana, is the AES Europe Southern Region vice president.

## AES MEETINGS



## TECHNICAL TOURS

Vienna is renowned for its many musical venues. Gregor Widholm, technical tours chair, made it possible for delegates with time available to visit some of the most interesting technical and acoustical venues. Among these offerings was the opportunity to visit the world-renowned Musikverein, including the four new halls that have been built at that establishment. Because there had been considerable excavation for a new metro line next to the location, it had been possible to build new spaces underground, christened the Glass Hall, Metal Hall, Stone Hall, and Wooden Hall, complementing the well-known classical Golden and Brahms Halls above ground. It was also possible to visit the Silent Stage of the Vienna Symphonic Library, one of the biggest producers of virtual instruments in the world with a database of over 1.5 million samples. Music lovers could also go to the Bösendorfer piano factory, where some of the world's most outstanding instruments are constructed, and

to the Vienna State Opera, one of the most famous and important opera houses in the world.

In addition to these musical treats, visits were also available to ORF, Austria's national public broadcaster. These included both the radio and television broadcasting studios, with particular emphasis on three newly refurbished post-production studios with outstanding acoustic design and surround sound facilities.

## STANDARDS AND TECHNICAL MEETINGS

A comprehensive program of standards committee meetings were held during and prior to the convention, thanks to the diligent work of Richard Chalmers, Standards Committee chair, and Mark Yonge, AES Standards manager. Over 65 working groups are represented, covering fields as diverse as digital audio, preservation and restoration, acoustics, interconnections, networks, and file transfer. An important project that will benefit libraries and archives was com-



- 1 Standards:** Mark Yonge (left), standards manager, and Richard Chalmers, Standards Committee chair
- 2 Regions and Sections:** Francis Rumsey, chair, and Jose de Oliveira
- 3 Awards:** from left, Bob Moses, Theresa Leonard, chair, Han Tendeloo, Ron Streicher, and Neil Gilchrist
- 4 Technical Council:** Bob Schulein (left), chair, and Jürgen Herre, vice chair
- 5 Conference Policy:** from left, Peter Swarte, Subir Pramanik, Jan Pederson, Geoff Martin, chair, and Wieslaw Woszczyk
- 6 Education:** Jason Corey (2nd from left), leads the discussion
- 7 Strategic Advisory Group:** Frank Wells (top), chair, led the group
- 8 Publications Policy:** From left, Francis Rumsey, Nick Zacharov, Stanley Lipshitz, Neil Gilchrist, John Vanderkooy, and Mike Williams

pleted by AES Standards working group SC-03-02 on Transfer Technologies. They delivered the AES Coarse-Groove Calibration Disc, a critical tool that will help preserve our musical heritage (see the special report on page 638 for the complete story).

In addition to the amazing Heyser Lecture by Gerhard Steinke, the AES Technical Council, led by Bob Schulein, chair, and Jürgen Herre, vice chair, organized an extensive series of technical committee meetings, culminating in the final meeting of the Technical Council on the last day of the convention.

It would not be possible to run such a convention without the tireless support of a dedicated and hard working committee. In addition to those already mentioned, the 122nd Committee (see page 651) benefited greatly from the support of its facilities officers, Nadia Wallaszkovits, chair, and Piotr Maydak, vice chair, who ensured the smooth running of the many different events that needed equipment or sup-

port of one form or another. The convention committee was ably supported by Konstantin Ulitsch. Behind the scenes, the hard work and expertise of Roger Furness, AES executive director, gave the committee strong support. The Austria Center's layout made for a well integrated convention, with easy passage between technical sessions and exhibition areas, centered around a valuable meeting area with good food, where delegates could also browse the AES Publications booth and perhaps purchase something technical to read on the train or plane home. All in all there can be little doubt that the Vienna convention of 2007 was a resounding success for the Society, fulfilling admirably its mission to disseminate knowledge about audio engineering and promote innovation. Plans are already well under way for the 123rd Convention (see preview starting on page 662 of this issue) in New York (October 5–8, 2007) and the 124th Convention in Amsterdam (May 17–20, 2008). See [www.aes.org](http://www.aes.org) for the latest news and updates.

# Board of Governors Meets

The AES Board of Governors met on May 8  
to hear reports from AES officials and standing committees:

- 1** Steven Harris, governor; Frank Wells, Strategic Advisory Group chair
- 2** Roger Furness, executive director; Kimio Hamasaki, governor
- 3** Jose de Oliveira, Europe Southern Region vice president; Louis Fielder, treasurer and Finance Committee chair
- 4** Theresa Leonard, Awards Committee chair; Nick Zacharov, Membership Committee chair
- 5** Richard Chalmers, Standards Committee chair; Ron Streicher, governor; Jay Fouts, legal counsel
- 6** Francis Rumsey, Regions and Sections Committee chair
- 7** Bob Lee, USA/Canada Western Region vice president
- 8** Han Tendeloo, secretary; Wieslaw Woszczyk, president
- 9** Josh Tidsbury, student representative
- 10** Peter Cook, USA/Canada Eastern Region vice president; Jim Kaiser, USA/Canada Central Region vice president
- 11** Geoff Martin, Conference Policy Committee chair



- 12** Peter Swarte, Europe Northern Region vice president; Bob Schulein, Technical Council chair
- 13** Misato Yamada, student representative
- 14** Bob Moses, president-elect and Laws and Resolutions Committee chair; John Strawn, governor and Convention Policy Committee chair
- 15** Ainslie Harris, student representative; Bozena Kostek, Europe Central Region vice president
- 16** Andres Mayo, Latin America Region vice president
- 17** Neil Gilchrist, past president and Nominations Committee chair; David Murphy, International Region vice president
- 18** John Vanderkooy, editor
- 19** Jason Corey, Education Committee chair; Suzana Jakovic, student representative

