



August 30, 2005 MEETING NOTICE

Meetings are free.
Guests are welcome.

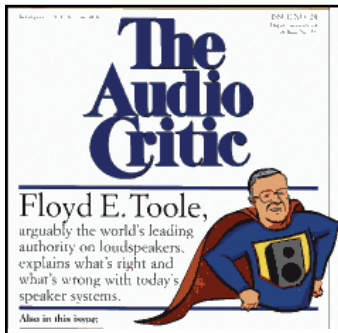
AES Los Angeles Section: Geoff Christopherson, la_section@aes.org
Los Angeles Section Web site: <http://www.aes.org/sections/la/>
AES Headquarters: 60 East 42nd Street, Room 2520
New York, NY 10165-2520 USA
Phone: 1-800-541-7299
Web: <http://www.aes.org>

AES LA Section Officers and Executive Committee

<i>Chairman:</i> David Scally	dscallyjr@aol.com	<i>Committee:</i> Bejan Amini	Gary Epstein
<i>Vice chair:</i> Mel Lambert	mediapr@earthlink.net	Alper Cakir	John Gordon
<i>Treasurer:</i> Tim Shuttleworth	t.shuttleworth@att.net	Joe Carter	Eric Mendenhall
<i>Secretary:</i> Geoff Christopherson	gchristo@harman.com	Rachel Cruz	Jonathan Novick

Monthly section meeting August 30, 2005:

The Acoustics and Psychoacoustics of Loudspeakers in Small Rooms – A Review



Dr. Floyd E. Toole's presentation will focus on the physical measures by which acousticians evaluate the performance of rooms that have evolved in performance spaces – concert halls, opera houses and auditoria.

Such evaluations rely on a set of assumptions that become progressively less valid as spaces get smaller, and more acoustically absorptive. In live performances, sound sources radiate in all directions and the room is a part of the performance. In sound reproduction, loudspeakers tend to exhibit significant directivity, and what we hear should ideally be independent of the listening room.

What, then, should we measure in small rooms? What configuration of loudspeakers and acoustical treatment is appropriate for multichannel audio reproduction? To what extent can we 'eliminate' the room? Or, do we need to? Is there a point beyond which the human hearing system is able to adapt to the listening space – hearing "through" the room and "around" the reflections to accurately perceive the source?

A certain amount of the right kind of reflected sound appears to enhance the music listening experience and, interestingly enough, to improve speech intelligibility. During his presentation, Floyd will review some of the basic science, using existing knowledge to provide guidance for choosing and using loudspeakers in rooms, and pointing out gaps in our knowledge – subjects for future research.

Floyd E. Toole studied electrical engineering at the University of New Brunswick, and then attended the Imperial College of Science and Technology, University of London, where he received a Ph.D. Upon graduation in 1965, he joined the National Research Council Canada, where he remained until 1991, reaching the position of Senior Research Officer in the Acoustics and Signal Processing Group. In November 1991, he joined Harman International Industries, Inc. where he is now Corporate Vice President - Acoustical Engineering. In 1998 he was appointed to the additional position of Senior Vice President of Acoustical Engineering for the JBL and Infinity brands, within the Harman Consumer Group. Dr. Toole's research activities have focused primarily on the acoustics and psychoacoustics of sound reproduction by loudspeakers. He has been especially involved in the general problem of loudspeaker/room/listener interactions, mainly in small rooms. Most notably, he has established methods for subjective and objective evaluations which have been used to clarify the relationships between technical measurements of loudspeakers and listeners' perceptions. For a paper on this subject he received the Audio Engineering Society (AES) Publications Award in 1988. More recent work focused on the perception and measurement of resonances in audio devices, for which (with Sean Olive) he received the 1990 AES Publications Award. All of this work was directed towards improving engineering measurements and objectives for loudspeaker

Continued on page 2

MEETING DATE: Tuesday, August 30, 2005. **PLACE:** Sportsmen's Lodge, Studio City
TIME: Meeting 8:00 P.M. Pre-meeting dinner (optional) at 7 P.M. Dinner cost is \$20.
MENU: Oriental Salad, Artichoke Chicken (alternate is Steamed Veggies on Rice), Roasted Potatoes, Medley of Fresh Vegetables, Rolls and Butter, Strawberry Shortcake

Audio Power Electronics - An Overview of Power Supply and Power Amplifier Technology



(Editor's Note: On behalf of the AES I would like to personally thank the staff at Extron Electronics for the use of their wonderful state-of-the-art meeting and educational facilities. And in case you weren't there for this meeting, they also served up an excellent chicken piccata.)

Eric Mendenhall, with nearly 20 years of experience in power supply and power amp designs, provided a very informative discussion on power supplies and power amplifier topologies.



Eric discussed the importance of power supplies for audio circuits with an emphasis on power amplifiers. Eric went into the differences of unregulated and regulated power supplies as well as the different power amp topologies. Eric provided six examples of power amps he has designed over the years, from the 80's to present day. For a better look and understanding for the audience, Eric used detailed internal photos of each amp during the presentation as well as having the actual amps on-hand for viewing.

Eric started the evening with an overview of different power supply designs. He covered the various combinations of low frequency and high frequency power converters, with and without regulation. Eric discussed the pros and cons of each design.

Next up was the discussion on power amplifier topologies. Eric went into detail on the power amp classifications: B, AB, AB + B, G, H, D, AD, BD, and briefly touched on class I, T, and Z. The discussion started with the fairly simple design of class B and how it can have the lowest distortion, but also the lowest efficiency, and then all the way through the other classes with the progression of designs becoming increasingly efficient but more complex and with higher distortion. After the meeting officially concluded, the evening continued a while longer with several members listening and asking questions of Eric as he went into some of his experiences and stories through the years of designing power supplies and power amplifiers.

Eric Mendenhall is an executive committee member with the AES-LA branch as well as a long time member of the IEEE.


(Editor's Note: On behalf of the AES I would like to personally thank the staff at Extron Electronics for the use of their wonderful state-of-the-art meeting and educational facilities. And in case you weren't there for this meeting, they also served up an excellent chicken piccata.)



The Acoustics and Psychoacoustics of Loudspeaker in Small Rooms – A Review

Continued from page 1

design and production control, and to techniques for reducing variability at the loudspeaker/room/listener interface. While at the National Research Council he initiated the Athena project, a collaboration with an audio industry consortium to develop psychoacoustically-optimized adaptive digital techniques for improving the performance of loudspeakers in rooms. At Harman International he coordinates engineering activities throughout Harman International companies, and directs the Harman Research and Development Group, a central resource for technology developments and subjective measurements in support of new product development. For over 20 years, Dr. Toole has been actively involved with standards writing activities for the International Electrotechnical Commission (IEC), the Audio Engineering Society

(AES) and the Canadian Standards Association (CSA). Dr. Toole has published several papers in the journals of the AES and Acoustical Society of America (ASA), chapters in two audio engineering handbooks, the section on sound reproducing systems in the upcoming edition of the McGraw-Hill Encyclopedia of Science and Technology, and numerous articles in consumer audio publications. He is a regular lecturer in the educational programs of industry organizations. He is a Fellow of the AES, a member of the ASA, a Past President of the Audio Engineering Society and in 1997 was awarded the AES Silver Medal Award, presented in recognition of outstanding developments in the subjective and objective evaluation of audio devices. 

AES-LA August Meeting

Title?

Alf Clausen (b. Minneapolis, Minnesota) received his training at North Dakota State University, the University of Wisconsin, and Boston's Berklee College of Music, earning degrees in Arranging & Composition. He began his musical career as a French Hornist and Bassist, going on to become an instructor at Berklee.

He has been composer for several television series and Movies Of The Week, including "Moonlighting" (for which he received six Emmy nominations), "The Simpsons" (for which he received two Emmy awards, three Annie awards, three International Monitor Awards, eighteen additional Emmy nominations and three additional Annie nominations), "Bette," "The Critic," "ALF" (no relation), "Christine Cromwell," "Dads," "Double Agent," "Fame," "Harry," "Lime Street," "My First Love," "Murder In Three Acts," "Police Story," "She Knows Too Much," "Stranded," & "Wizards & Warriors."



His feature film credits include "Half-Baked" and "Number One With A Bullet." His CD credits (as songwriter, conductor and producer) include the hit Rhino Records releases "The Simpsons: Songs In The Key Of Springfield: Original Music From The Television Series," "Go Simpsonic With The Simpsons: More Original Music From The Television Series," and his soon-to-be-released CD of the Alf Clausen Jazz Orchestra, "Swing Can Really Hang You Up The Most."

His music is featured on the Universal Studios Tram Tour 2000. He has also composed for the bands of Buddy Rich, Thad Jones & Mel Lewis, Ray Charles, Woody Herman, Stan Kenton & Denny Christianson.

His memberships include AFM, ASCAP, ATAS, IAJE, NARAS, Society of Composer & Lyricists (former Vice President and member, Board of Directors), Songwriters Guild, SAG, Who's Who In The West, Who's Who In California, and Who's Who In Entertainment.

Awards include two Emmy awards, twenty-five Emmy nominations, three Annie awards, three Annie nominations, three International Monitor

Awards, Grammy and CLIO nominations, Honorary Doctor of Music Degree-Berklee College of Music, Honorary Doctor of Music Degree-North Dakota State University, Alumnus Recognition Award-Berklee College of Music, "One of Top 50 Alumni" Award-Berklee College of Music, the Alumni Achievement Award-North Dakota State University, the "1:00 O'Clock" Award-North Texas State University, two National Endowment For The Arts Composition Fellowship Grants, and seven times recipient of the ASCAP Popular Award For Music Composition. He is also a recipient of several ASCAP Film and Television Music awards.

Chris Ledesma has lived his whole life in Southern California. He picked up playing piano by ear at age 3 and started playing trumpet in 3rd grade. After deciding at an early age to seek a career in music, he later attended CalArts and San Francisco Conservatory of Music as a conducting major.

His first music editing duties came on a student film at CalArts and he then decided to pursue music editing as a profession. The first opportunity came in 1986 working at Segue Music for Dan Carlin, Jr., then later at Music Design Group and Music Works for Roy Prendergast.

Chris went "independent" in 1993, forming his own company: Click Track, Inc. He is a frequent music editor for "The Hallmark Hall of Fame", has music edited feature films directed by Mel Brooks, Hugh Wilson and Jonathan Kaplan and has guest lectured at UCLA film school, CalArts, and the BMI "Conducting for the Film Composer" workshop.

He is the self-proclaimed "luckiest music editor ever" because he has music edited every episode of "The Simpsons".

Rick Riccio is an engineer/producer/musician. He earned his Bachelor of Music Degree in 1972 at Chapman University and is now the audio engineer for the long-running series "The Simpsons".

His long list of engineering credits include recording artists such as: Neil Diamond, Placido Domingo, John Denver, Ringo Starr, Harry Nilsson, Peabo Bryson, Teddy Pendergrass, Alabama, Allan Jackson, Ronnie Milsap, George Strait, Kenny Rogers and Jose Feliciano.

He is a prolific engineer for motion pictures and television and has engineered for numerous films such as "The Blues Brothers" (Ira Newborn), "Caddyshack" (Johnny Mandel), "Popeye" (Harry Nilsson), "Fast Times at Ridgemont High" (Lalo Shifrin) and "Lil Darlings" (Charles Fox). Among his many television credits are series such as, "ALF", "Benson", "Cheers", "Family Guy", "Happy Days", "King of the Hill", "Laverne & Shirley", "Little House on the Prairie", "M*A*S*H", "Moonlighting", "St. Elsewhere", and of course, "The Simpson's".

Rick is also involved in studio and sound system design. He has designed and built several well-known studios such as Buddy King Studios, Sound Castle Studios, Jose Feliciano Studios and Evergreen Recording Studios. He also designed custom sound systems for Rod Stewart, Keith Richards, Norman Lear, David Horowitz and Ron Wood.

Rick has worked as a consultant to Altec Lansing, Cerwin-Vega, Matsushita/Technics Japan and Suzuki Music U.S.A..

Upcoming AES and AES-LA Events

Please visit the Web pages indicated for schedules, registration and housing information, etc.

27th AES Conference: September 2–4, 2005
Hillerød (Copenhagen), Denmark
Efficient Audio Power Amplification

119th AES Convention October 7–10, 2005
Jacob K. Javits Convention Center, New York, NY
<http://www.aes.org/events/119/>

AES Monthly Meeting October 25, 2005
Sportsmen's Lodge, Studio City
Live Sound Related Presentation

AES-LA Job Board

Software Engineers

Euphonix has an opening in its software engineering department for an experienced software engineer to expand the capabilities of our software team. We are looking for someone who will integrate well with our team and have the flexibility to tackle a variety of assignments as needed.

Requirements: At least 5-6 years experience with C++ • Demonstrated ability to learn and debug large software code bases • Experience with one or more modern software design methodologies • Consistent and strong software coding standards • Experience with writing and supporting software unit tests • Experience with writing and debugging real-time software

Desired skills: Windows OS • Familiarity with networked and distributed object software architectures (CORBA, COM, etc.) • Build systems for large projects, both Microsoft and Make Scripting languages: Perl, Javascript, Bash, wsf, etc. • XML parsing and generation • Familiarity with audio mixing consoles • Familiarity with audio/video post production and/or broadcast • Familiarity with firewire software • Visual Studio.NET Development Environment • Macintosh OSX Embedded • Windows XP

Please send resumes to hr@euphonix.com or fax **650-855-0410**

With nearly 1,000 members, the Los Angeles section is one of the Audio Engineering Society's largest and most active. Don't miss out on the section's activities; check the web site at <http://www.aes.org/sections/la/>.

You can save money for the section by receiving this newsletter by e-mail instead of regular mail. Send your e-mail address to section secretary Geoff Christopherson, la_section@aes.org.

Section newsletter editor: David Scally E-mail: descallyjr@aol.com



c/o Lori Jackson, Section Administration
60 E. 42nd Street, Room 2520
New York, NY 10165-2520

RETURN SERVICE REQUESTED

FIRST CLASS MAIL

Meeting date: August 30, 2005

Presorted
First Class
U.S. Postage
PAID
Glendale, CA 912
Permit #276