168th Meeting of the Acoustical Society of America

The 168th meeting of the Acoustical Society of America will be held Monday through Friday, 27–31 October 2014 at the Marriott Indianapolis Downtown Hotel, Indianapolis, Indiana, USA.

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1. HOTEL INFORMATION

The Indianapolis Marriott Downtown Hotel is the headquarters hotel where all meeting events will be held.

Note that there are three Marriott hotels in Indianapolis so please specify the Downtown as your destination when traveling.

The cut-off date for reserving rooms at special rates has passed. Please contact the Indianapolis Marriott Downtown Hotel for reservation information: 350 West Maryland Street, Indianapolis, IN 46225, Tel: 317-822-3500.

2. TRANSPORTATION AND TRAVEL DIRECTIONS

Indianapolis is served by many major airlines through Indianapolis International Airport (IND). Information is available at www.indianapolisairport.com. The airport terminal consists of one centralized check-in area with gates on two concourses A and B which are connected via walkways to each other as well as to the check-in and reception areas of the airport. You can easily walk from the terminal via an elevated walkway to the car rental desks, which are in the Ground Transportation Center. Also, located in the same area are the limos and ground transportation information desks.

TAXI. Taxis depart from just outside the baggage claim area on the ground floor of the terminal. There is a minimum charge of USD $15 for all taxis, whatever the distance travelled. Typical costs to downtown Indianapolis are USD $15 to USD $20. Driving time to reach the Downtown Marriott is about 30 minutes.

GO GREEN LINE AIRPORT SHUTTLE. The shuttle leaves the airport on the hour and the half hour from Zone #7 on the road just outside the Ground Transportation Center. The cost is USD $10 (debit/credit card only accepted by drivers) and takes about 36 minutes to reach the Marriott complex which includes the downtown Marriott (as well as Springhill Suites, the JW Marriott, Courtyard Marriott and Fairfield Inn). You can book online at goexpresstravel.com.

BUS SERVICE TO AND FROM THE AIRPORT. IndyGo's Route 8 (www.indygo.net/maps-schedules/airport-service) provides non-express, fixed-route service from the airport to downtown via stops along Washington Street. Cost is USD $1.75 per ride. For further information and route maps visit http://www.indygo.net/maps-schedules/airport-service. The buses stop close to all the major downtown hotels. The stop at West and Washington is just northwest of the hotel. Pick-up stops are slightly different but still nearby. The stop at the airport is at Zone #6 on the road just outside the Ground Transportation Center.

SHARED-RIDE AND PERSONAL LUXURY LIMOUSINE SERVICES. These transportation services are available. Information desks are located in the Ground Transportation Center. A list of limousine companies can be found at www.indianapolisairport.com.

RENTAL CAR. Renting a car is not recommended unless you are planning trips out of town. Most everything you need should be within walking distance of the hotel. There are a lot of very nice restaurants, museums and shops reasonably close to the hotel. If you do need a rental car, the desks are located in the Ground Transportation Center on the 1st floor (ground level) of the parking garage. Alamo, Avis, Budget, Dollar, Enterprise, Hertz, National, and Thrifty all have desks at the airport

and ACE has an off-airport location with a shuttle service to and from the airport, pick up just outside the Ground Transportation Center.

Amtrak and Greyhound both serve Indianapolis and the train and bus stations are within walking distance of the conference hotel. However, trains to do not run very often, e.g., one a day from Chicago to Indianapolis, versus seven a day Greyhound buses from Chicago to Indianapolis. The Amtrak station is at 350 S. Illinois Street a 10-minute walk (0.5 miles) from the Marriott and the Greyhound Station is next to the Amtrak station at 154 W. South St. See www.greyhound.com and tickets.amtrak.com for more information.

3. STUDENT TRANSPORTATION SUBSIDIES

To encourage student participation, limited funds are available to defray partially the cost of travel expenses of students to attend Acoustical Society meetings. Instructions for applying for travel subsidies are given in the Call for Papers which can be found online at http://acousticalsociety.org. The deadline for the present meeting has passed but this information may be useful in the future.

4. MESSAGES FOR ATTENDEES

Messages for attendees may be left by calling the Indianapolis Marriott Downtown Hotel, 317-822-3500, and asking for the ASA Registration Desk during the meeting, where a message board will be located. This board may also be used by attendees who wish to contact one another.

5. REGISTRATION

Registration is required for all attendees and accompanying persons. Registration badges must be worn in order to participate in technical sessions and other meeting activities.

Registration will open on Monday, 27 October, at 7:30 a.m. in the Marriott Ballroom Foyer on the second floor (see floor plan on page A11).

Checks or travelers checks in U.S. funds drawn on U.S. banks and Visa, MasterCard and American Express credit cards will be accepted for payment of registration. Meeting attendees who have pre-registered may pick up their badges and registration materials at the pre-registration desk.

The registration fees (in USD) are $545 for members of the Acoustical Society of America; $645 for non-members, $150 for Emeritus members (Emeritus status pre-approved by ASA), $275 for ASA Early Career members (for ASA members within three years of their most recent degrees – proof of date of degree required), $90 for ASA Student members, $130 for students who are not members of ASA, $115 for Undergraduate Students, and $150 for accompanying persons.

One-day registration is available at $275 for members and $325 for nonmembers (one-day means attending the meeting on only one day either to present a paper and/or to attend sessions). A nonmember who pays the $645 nonmember registration fee and simultaneously applies for Associate Membership in the Acoustical Society of America will be given a $50 discount off their dues payment for 2015 dues.

Invited speakers who are members of the Acoustical Society of America are expected to pay the registration fee, but nonmember invited speakers who participate in the meeting only on the day of their presentation may register without charge. The registration fee for nonmember invited speakers who wish to participate for more than one day is $110 and includes a one-year Associate Membership in the ASA upon completion of an application form.

Special note to students who pre-registered online: You will also be required to show your student id card when picking-up your registration materials at the meeting.

6. ASSISTIVE LISTENING DEVICES

The ASA has purchased assistive listening devices (ALDs) for the benefit of meeting attendees who need them at technical sessions. Any attendee who will require an assistive listening device should advise the Society in advance of the meeting by writing to: Acoustical Society of America, 1305 Walt Whitman Road, Suite 300, Melville, NY 11747-4300; asa@aip.org

7. TECHNICAL SESSIONS

The technical program includes 92 sessions with 948 papers scheduled for presentation during the meeting.

A floor plan of the Marriott Hotel appears on page A11. Session Chairs have been instructed to adhere strictly to the printed time schedule, both to be fair to all speakers and to permit attendees to schedule moving from one session to another to hear specific papers. If an author is not present to deliver a lecture-style paper, the Session Chairs have been instructed either to call for additional discussion of papers already given or to declare a short recess so that subsequent papers are not given ahead of the designated times.

Several sessions are scheduled in poster format, with the display times indicated in the program schedule.

8. TECHNICAL SESSION DESIGNATIONS

The first character is a number indicating the day the session will be held, as follows:
1-Monday, 27 October
2-Tuesday, 28 October
3-Wednesday, 29 October
4-Thursday, 30 October
5-Friday, 31 October

The second character is a lower case "a" for a.m., "p" for p.m., or "e" for evening corresponding to the time of day the session will take place. The third and fourth characters are capital letters indicating the primary Technical Committee that organized the session using the following abbreviations or codes:

AA   Architectural Acoustics
AB   Animal Bioacoustics
AO   Acoustical Oceanography
BA   Biomedical Acoustics
EA   Engineering Acoustics
ED   Education in Acoustics
ID   Interdisciplinary
MU   Musical Acoustics
NS   Noise
PA   Physical Acoustics

PP   Psychological and Physiological Acoustics
SA   Structural Acoustics and Vibration
SC   Speech Communication
SP   Signal Processing in Acoustics
UW   Underwater Acoustics

In sessions where the same group is the primary organizer of more than one session scheduled in the same morning or afternoon, a fifth character, either lower-case "a" or "b" is used to distinguish the sessions. Each paper within a session is identified by a paper number following the session-designating characters, in conventional manner. As hypothetical examples: paper 2pEA3 would be the third paper in a session on Tuesday afternoon organized by the Engineering Acoustics Technical Committee; 3pSAb5 would be the fifth paper in the second of two sessions on Wednesday afternoon sponsored by the Structural Acoustics and Vibration Technical Committee.

Note that technical sessions are listed both in the calendar and the body of the program in the numerical and alphabetical order of the session designations rather than the order of their starting times. For example, session 3aAA would be listed ahead of session 3aAO even if the latter session began earlier in the same morning.

9. HOT TOPICS SESSION

Hot Topics session 3pID will be held on Wednesday, 29 October, at 1:00 p.m. in Indiana E. Papers will be presented on current topics in the fields of Education in Acoustics, Signal Processing in Acoustics, and Acoustical Oceanography.

10. ROSSING PRIZE IN ACOUSTICS EDUCATION AND ACOUSTICS EDUCATION PRIZE LECTURE

The 2014 Rossing Prize in Acoustics Education will be awarded to Colin Hansen, University of Adelaide, at the Plenary Session on Wednesday, 29 October. Colin Hansen will present the Acoustics Education Prize Lecture titled "Educating mechanical engineers in the art of noise control" on Wednesday, 29 October, at 2:00 p.m. in Session 3pED in Indiana C/D.

11. TUTORIAL LECTURE: MUSICAL ACOUSTICS: SCIENCE AND PERFORMANCE

A tutorial presentation on "Musical Acoustics: Science and Performance" will be given by Professor Uwe J. Hansen of Indiana State University, and the New World Youth Symphony, directed by Susan Kitterman, on Monday, 27 October at 7:00 p.m. in the Hilbert Circle Theater.

The Tutorial Concert will be preceded by a tour of Hilbert Circle Theater, home of the Indianapolis Symphony. Hilbert Circle Theater was a movie house. It underwent major revisions to make it suitable as a concert hall. Since the last ASA meeting in Indianapolis in 1996, the concert hall has undergone additional major remodeling, mainly in the stage area, but also in the hall itself. The tour will begin at 6:00 p.m.

Hilbert Circle Theater is well within easy walking distance of the hotel (allow 15 minutes to get there), however, in the event of inclement weather, and for those with additional needs, limited bus transportation will be available (from 5:30pm onwards).

Lecture notes will be available at the meeting in limited supply; only preregistrants will be guaranteed receipt of a set of notes.

All Students (K – Grad school) will be admitted free of charge. General admission, for both the general Public and ASA members is USD $20.00. ASA members who include attendance in this tutorial concert in their pre-registration by 22 September pay the reduced fee of USD $15.00.

12. SHORT COURSE ON ELECTROACOUSTIC TRANSDUCERS

A short course on Electroacoustic Transducers: Fundamentals and Applications will be given in two parts: Sunday, 26 October, from 1:00 p.m. to 5:00 p.m. and Monday, 27 October, from 7:30 a.m. to 12:30 p.m. in the Santa Fe Room.

The objectives are (1) to introduce the physical principles, basic performance, and system design aspects required for effective application of receiving and transmitting transducers and (2) to present common problems and potential solutions.

The instructor is Thomas Gabrielson, a Senior Scientist and Professor of Acoustics at Penn State University, previously worked in underwater-acoustic transducer design, modeling, and measurement for 22 years at the Naval Air Warfare Center in Warminster, PA.

The registration fee is USD$300.00 (USD$125 for students) and covers attendance, instructional materials and coffee breaks. Onsite registration at the meeting will be on a space-available basis.

13. UNDERGRADUATE RESEARCH POSTER EXPOSITION

The Undergraduate Research Exposition will be held Tuesday morning, 28 October, 9:00 a.m. to 11:00 a.m. in session 2aED in Marriott 6. The 2014 Undergraduate Research Exposition is a forum for undergraduate students to present their research pertaining to any area of acoustics and can also include overview papers on undergraduate research programs, designed to inspire and foster growth of undergraduate research throughout the Society. It is intended to encourage undergraduates to express their knowledge and interest in acoustics and foster their participation in the Society. Four awards, up to $500 each, will be made to help undergraduates with travel costs associated with attending the meeting and presenting a poster.

14. RESUME HELP DESK

Are you interested in applying for graduate school, a postdoctoral opportunity, a research scientist position, a faculty opening, or other position involving acoustics? If you are, please stop by the ASA Resume Help Desk in the Marriott Ballroom Foyer near the registration desk. Members of the ASA experienced in hiring will be available to look at your CV, cover letter, and research & teaching statements to provide tips and suggestions to help you most effectively present yourself in today's competitive job market. The ASA Resume Help Desk will be staffed on Tuesday, Wednesday, and Thursday during the lunch hour for walk-up meetings. Appointments during these three lunch hours will be available via a sign-up sheet, too.

15. TECHNICAL COMMITTEE OPEN MEETINGS

Technical Committees will hold open meetings on Tuesday, Wednesday, and Thursday at the Indianapolis Marriott Downtown. The meetings on Tuesday and Thursday will be held in the evenings after the socials, except Engineering Acoustics which will meet at 4:30 p.m. on Tuesday. The schedule and rooms for each Committee meeting are given on page A16.

These are working, collegial meetings. Much of the work of the Society is accomplished by actions that originate and are taken in these meetings including proposals for special sessions, workshops and technical initiatives. All meeting participants are cordially invited to attend these meetings and to participate actively in the discussions.

16. TECHNICAL TOURS

Note: Tour buses leave from the Marriott's Missouri Street Exit.

Monday, 27 October, 6:00 p.m.-8:30 p.m. Tour and Tutorial Lecture at the Hilbert Circle Theater, 45 Monument Circle, Indianapolis. Tour fees: USD $15 preregistration and USD $20 on-site for non-students/No fee for students. Prior to becoming the home of the Indianapolis Symphony, Hilbert Circle Theater was a movie house. It underwent major revisions to make it suitable as a concert hall. Tour starts at 6:00 p.m. at the theater and tutorial presentation starts at 7:00 p.m. The Theater is half a mile walking distance (about 15 minutes from the hotel, so leave at 5:45 p.m. at the latest). See the Tutorial Lecture section above for full details.

Tuesday, 28 October: 10:00 a.m.-12:00 noon. Tour of the Center for the Performing Arts, 355 City Center Drive, Carmel. Tour limited to 30 participants. Tour fee: USD $25. The Center for Performing Arts houses the Palladium (1,600 seat concert hall), the Tarkington Theater (500 seats proscenium stage) and the Studio Theater (small flexible black box space). This is a recently completed facility north of Indianapolis. The Palladium is a space that rivals the world's great concert halls. David M. Schwarz Architects, a Washington, DC based architectural firm, drew inspiration for the Palladium from the famous Villa Capra "La Rotunda" (or Villa Rotunda) built in 1566 in Italy and designed by Italian Renaissance architect Andrea Palladio (1508–1580). For more information about the Center visit www.thecenterfortheperformingarts.org.

Tuesday, 28 October: 3:00 p.m.-6:00 p.m. Indiana University School of Medicine, 699 Riley Hospital Drive, Indianapolis. Tour limited to 30 participants. Tour fee: USD $25. The Department of Otolaryngology-Head and Neck Surgery was organized as an independent department within the Indiana School of Medicine in 1909 by John Barnhill, M.D., an internationally recognized head and neck surgeon and anatomist. Since then the specialty has undergone tremendous expansion in managing disorders of the ear, nose, throat, head and neck. The DeVault Otologic Research Laboratory is the primary behavioral research venue for the Department. Occupying approximately 3000 square feet on two floors of the research wing of the James Whitcomb Riley Hospital for Children, the laboratory is named for its principal early benefactor, Dr. Virgil T. DeVault (1901-2000), a native Hoosier and alumnus of Indiana University. In the laboratory researchers examine the short-term and long-term effects of cochlear implantation and/or therapeutic amplification in deaf and hard-of-hearing infants, children, and adults, as well as the factors underlying variability in behavioral outcomes of cochlear implantation and/or therapeutic amplification.

Thursday, 30 October: 3:00 p.m.-6:00 p.m. Tour of 3M Acoustics Facilities, 7911 Zionsville Road, Indianapolis. Tour limited to 30 participants. Tour fee: USD $25 Elliott Berger and Steve Sorenson will give tours of 3M's E•A•RCAL hearing protection laboratory and Acoustic Technology Center (ATC) laboratory for noise control research and application. The E•A•RCAL facility consists of a NVLAP accredited 113-m^3 reverberation chamber instrumented for real-ear attenuation testing, an 18-m^3 electroacoustic sound lab supporting high-level tests up to 120 dB SPL, and a 300-m^3 hemi-anechoic facility used for impulse testing via a shock tube that generates blasts up to 168 dB SPL for measuring the level-dependent performance of hearing protectors. The ATC includes a 900-m^3 hemi-anechoic chamber with an inbuilt chassis dynamometer ideal for testing heavy trucks under real-world load conditions, a smaller hemi-anechoic chamber for product sound power testing, and 2 reverberation chambers for a wide variety of sound transmission loss and sound absorption test/development. Note that no photographs are allowed to be taken on this tour. Conference attendees who work for 3M/Aearo/E-A-R competitors may not be allowed to participate in the tour – the registration fee will be refunded in full should the request to participate (through pre-registration) not be approved.

Start times are when the bus leaves the hotel, so plan on being there ahead of time.

On-site registration will be on a space-available basis.

17. GALLERY OF ACOUSTICS

The Technical Committee on Signal Processing in Acoustics will sponsor the 15th Gallery of Acoustics at the Acoustical Society of America meeting in Indianapolis. Its purpose is to enhance ASA meetings by providing a setting for researchers to display their work to all meeting attendees in a forum emphasizing the diversity, interdisciplinary, and artistic nature of acoustics. The Gallery of Acoustics provides a means by which we can all share and appreciate the natural beauty, aesthetic, and artistic appeal of acoustic phenomena: This is a forum where science meets art.

The Gallery will be held in the Marriott Ballroom 6, Monday through Thursday, 27-30 October, from 9:00 a.m. to 5:00 p.m.

18. ANNUAL MEMBERSHIP MEETING

The Annual Membership Meeting of the Acoustical Society of America will be held at 3:30 p.m. on Wednesday, 29 October 2014, in Marriott 5 at the at the Indianapolis Downtown Marriott Hotel, 350 West Maryland Street, Indianapolis, IN 46225.

19. PLENARY SESSION AND AWARDS CEREMONY

A plenary session will be held Wednesday, 29 October, at 3:30 p.m. in Marriott 5.

The Rossing Prize in Acoustics Education will be presented to Colin Hansen. The Pioneers of Underwater Acoustics Medal will be presented to Michael B. Porter, the Silver Medal in Speech Communication will be presented to Sheila E. Blumstein and the Wallace Clement Sabine Medal will be presented to Ning Xiang. Certificates will be presented to Fellows elected at the Providence meeting of the Society. See page 2228 for a list of fellows.

20. ANSI STANDARDS COMMITTEES

Meetings of ANSI Accredited Standards Committees will not be held at the Indianapolis meeting.

Meetings of selected advisory working groups are often held in conjunction with Society meetings and are listed in the Schedule of Committee Meetings and Other Events on page A16 or on the standards bulletin board in the registration area, e.g., S12/WGI8-Room Criteria.

People interested in attending and in becoming involved in working group activities should contact the ASA Standards Manager for further information about these groups, or about the ASA Standards Program in general, at the following address: Susan Blaeser, ASA Standards Manager, Standards Secretariat, Acoustical Society of America, 1305 Walt Whitman Road, Suite 300, Melville, NY 11747-4300; T.: 631-390-0215; F: 631-923-2875; E: asastds@aip.org

21. COFFEE BREAKS

Morning coffee breaks will be held each day from 9:40 a.m. to 10:40 a.m. in Marriott 6.

22. A/V PREVIEW ROOM

The Albany Room on the second floor will be set up as an A/V preview room for authors' convenience, and will be available on Monday through Thursday from 7:00 a.m. to 5:00 p.m. and Friday from 7:00 a.m. to 12:00 noon.

23. PROCEEDINGS OF MEETINGS ON ACOUSTICS (POMA)

The Indianapolis meeting will have a published proceedings, and submission is optional. The proceedings will be a separate volume of the online journal, "Proceedings of Meetings on Acoustics" (POMA). This is an open access journal, so that its articles are available in pdf format without charge to anyone in the world for downloading. Authors who are scheduled to present papers at the meeting are encouraged to prepare a suitable version in pdf format that will appear in POMA. The format requirements for POMA are somewhat more stringent than for posting on the ASA Online Meetings Papers Site, but the two versions could be the same. The posting at the Online Meetings Papers site, however, is not archival, and posted papers will be taken down six months after the meeting. The POMA online site for submission of papers from the meeting will be opened about one-month after authors are notified that their papers have been accepted for presentation. It is not necessary to wait until after the meeting to submit one's paper to POMA. Further information regarding POMA can be found at the site http://asadl/poma/for_authors_poma. Published papers from previous meeting can be seen at the site http://asadl/poma.

24. E-MAIL ACCESS, INTERNET CAFÉ, AND BREAK ROOM

Computers providing e-mail access will be available 7:00 a.m. to 5:00 p.m., Monday to Thursday and 7:00 a.m. to 12:00 noon on Friday in Marriott 6.

A unique feature of this ASA meeting is that a ballroom located directly opposite the registration area will be dedicated as a central gathering area for discussion, wi-fi, coffee breaks, the Gallery of Acoustics and more. Join your colleagues the Break Room every day to discuss the latest ASA topics and news.

Wifi will be available in all ASA meeting rooms and spaces.

25. SOCIALS

The Eiteljorg Museum of American Indian and Western art will be the site for the social on Tuesday, October 28, from 6:00 p.m. to 9:00 p.m. Galleries will be open for viewing art that promotes understanding of the history and cultures of North American people, including their contemporary Native art collection that has been ranked among the world's best. The collections are housed in a striking building, located along the White River Canal within easy walking distance (about 6 minutes) of the Indianapolis Marriott Downtown. For those who prefer not to walk, shuttle service will be available throughout the evening to and from the Missouri Street exit of the hotel. In keeping with the Museum, the reception will feature a delectable array of food selections having a slightly Southwestern flair.

A Halloween Social for all, even noisy spirits or eerie creatures, will take place on Thursday, October 30 in the Marriott Ballroom from 6:00 p.m. to 7:30 p.m. Costumes are positively encouraged, so don't forget to pack one. Get ready for a few fun surprises organized by a team of young acousticians that are sure to provide some great photo ops. To set the stage for Thursday night's activities, Halloween fun is included in a Thursday afternoon technical session sponsored by Architectural Acoustics and Speech Communication. In this session other worldly minds offer 13 talks from 1:00 p.m. to 5:00 p.m. in Marriott Ballroom 5/6. Come to learn about the acoustics of supernatural spirits, bumps in the night, eerie voices and other sorts of spooky audition.

The ASA hosts these social hours to provide a relaxing setting for meeting attendees to meet and mingle with their friends and colleagues as well as an opportunity for new members and first-time attendees to meet and introduce themselves to others in the field. A second goal of the socials is to provide a sufficient meal so that meeting attendees can attend the Technical Committees meetings that begin immediately after the socials

26. SOCIETY LUNCHEON AND LECTURE

The Society Luncheon and Lecture will be held on Thursday, 30 October, at 12:00 noon in Indiana E. The luncheon is open to all attendees and their guests. The speaker is Larry E. Humes, Distinguished Professor and Department Chair, Department of Speech and Hearing Sciences, Indiana University. Purchase your tickets at the Registration Desk before 10:00 a.m. on Wednesday, 29 October. The cost is $30.00 per ticket.

27. STUDENTS MEET MEMBERS FOR LUNCH

The ASA Education Committee arranges for a student to meet one-on-one with a member of the Acoustical Society over lunch. The purpose is to make it easier for students to meet and interact with members at ASA Meetings. Each lunch pairing is arranged separately. Students who are interested should contact Dr. David Blackstock, University of Texas at Austin, by email dtb@mail.utexas.edu Please provide your name, university, department, degree you are seeking (BS, MS, or PhD), research field, acoustical interests, your supervisor's name, days you are free for lunch, and abstract number (or title) of any paper(s) you are presenting. The sign-up deadline is 12 days before the start of the Meeting, but an earlier sign-up is strongly encouraged. Each participant pays for his/her own meal.

28. STUDENT EVENTS: NEW STUDENTS ORIENTATION, MEET AND GREET, STUDENT RECEPTION

Follow the student twitter throughout the meeting @ ASAStudents.

A New Students Orientation will be held from 5:00 p.m. to 5:30 p.m. on Monday, 27 October, in Marriott 9/10 for all students to learn about the activities and opportunities available for students at the Indianapolis ASA meeting. This will be followed by the Student Meet and Greet from 5:30 p.m. to 6:45 p.m. in Marriott 6. Refreshments and a cash bar will be available. Students are encouraged to attend the tutorial lecture on which begins at 7:00 p.m. in The Hilbert Theater. Student registration for this event is free.

The Students' Reception will be held on Wednesday, 29 October, from 6:45 p.m. to 8:15 p.m. in Indiana E. This reception, sponsored by the Acoustical Society of America and supported by the National Council of Acoustical Consultants, will provide an opportunity for students to meet informally with fellow students and other members of the Acoustical Society. All students are encouraged to attend, especially students who are first time attendees or those from smaller universities.

Students will find a sticker to place on their name tags identifying them as students in their registration envelopes. Although wearing the sticker is not mandatory, it will allow for easier networking between students and other meeting attendees.

Students are encouraged to refer to the student guide, also found in their envelopes, for important program and meeting information pertaining only to students attending the ASA meeting.

They are also encouraged to visit the official ASA Student Home Page at www.acosoc.org/student/ to learn more about student involvement in ASA.

29. WOMEN IN ACOUSTICS LUNCHEON

The Women in Acoustics luncheon will be held at 11:30 a.m. on Wednesday, 29 October, in the Circle City Bar and Grille on the first floor of the Marriott. Those who wish to attend must purchase their tickets in advance by 10:00 a.m. on Tuesday, 28 October. The fee is USD$30 for non-students and USD$15 for students.

30. JAM SESSION

You are invited to Marriott 6 on Wednesday night, 29 October, in Marriott 6 from 8:00 p.m. to midnight for the JAM SESSION. Bring your axe, horn, sticks, voice, or anything else that makes music. Musicians and non-musicians are all welcome to attend. A full PA system, backline equipment, guitars, bass, keyboard, and drum set will be provided. All attendees will enjoy live music, a cash bar with snacks, and all-around good times. Don't miss out.

31. ACCOMPANYING PERSONS PROGRAM

Spouses and other visitors are welcome at the Indianapolis meeting. The on-site registration fee for accompanying persons is USD$150. A hospitality room for accompanying persons will be open in the Texas Room at the Indianapolis Marriott Downtown Hotel from 8:00 a.m. to 10:00 a.m. Monday through Thursday. For updates about the accompanying persons program please check the ASA website at AcousticalSociety.org/meetings.html.

Visit: **http://visitindy.com** to learn about what is going on in Indianapolis. Good places to visit within walking distance include the Eiteljorg Museum (Tuesday night social venue), the Indiana State Museum (with IMAX theater), the NCAA Hall of Champions, the Indianapolis Zoo, and White River State Park (you can hire bikes there). Further away requiring transportation (taxi or bus - **http://www.indygo.net/pages/system-map**) is the Indianapolis Speedway Museum which is at the Indy 500 track, the Children's Museum, and the Indiana Museum of Art. Close to the hotel, there is the Circle Center Mall which is a great place for shopping.

32. WEATHER

Weather in Indianapolis in the last week in October can vary a lot from year to year. Make sure you are prepared for rain so you can take full advantage of nearby restaurants and attractions. See http://visitindy.com and the hotel website http://www.marriott.com/hotels/travel-guide/indcc-indianapolis-marriott for more information about Indianapolis. There is a 35% chance of some sort of precipitation (rain) and snow is very rare at that time of year. Average low and high temperatures at that time of year are 41 and 60 degrees F, respectively.

33. TECHNICAL PROGRAM ORGANIZING COMMITTEE

Robert F. Port, Chair; David R. Dowling, Acoustical Oceanography; Roderick J. Suthers, Animal Bioacoustics; Norman H. Philipp, Architectural Acoustics; Robert J. McGough, Biomedical Acoustics; Uwe J. Hansen, Education in Acoustics; Roger T. Richards, Engineering Acoustics; Andrew C.H. Morrison, Musical Acoustics; William J. Murphy, Noise; Kai Ming Li, Physical Acoustics; Jennifer Lentz, Psychological and Physiological Acoustics; R. Lee Culver, Cameron Fackler, Signal Processing in Acoustics; Diane Kewley-Port, Alexander L. Francis, Speech Communication; Benjamin M. Shafer, Structural Acoustics and Vibration; Kevin L Williams, Underwater Acoustics.

34. MEETING ORGANIZING COMMITTEE

Kenneth de Jong and Patricia Davies, Cochairs; Robert F. Port, Technical Program Chair; Diane Kewley-Port, Tessa Bent, Mary C. Morgan, Food and Beverage; Mary C. Morgan, Kai Ming Li, Tom Lorenzen, Audio-Visual and WiFi; Caroline Richie, Volunteer Coordination; William J. Murphy, Technical Tours; Uwe Hansen, Educational Activities, Tutorials; Diane Kewley-Port, Special Events; Maria Kondaurova, Guanguan Li, Michael Hayward, Indianapolis Visitor Information; Tessa Bent, Student Activities; Mary C. Morgan, Meeting Administrator.

35. PHOTOGRAPHING AND RECORDING

Photographing and recording during regular sessions are not permitted without prior permission from the Acoustical Society.

36. ABSTRACT ERRATA

This meeting program is Part 2 of the October 2014 issue of *The Journal of the Acoustical Society of America*. Corrections, for printer's errors only, may be submitted for publication in the Errata section of the *Journal*.

37. GUIDELINES FOR ORAL PRESENTATIONS
Preparation of Visual Aids
See the enclosed guidelines for computer projection.
- Allow at least one minute of your talk for each slide (e.g., Powerpoint). No more than 12 slides for a 15-minute talk (with 3 minutes for questions and answers).
- Minimize the number of lines of text on one visual aid. 12 lines of text should be a maximum. Include no more than 2 graphs/plots/figures on a single slide. Generally, too little information is better than too much.
- Presentations should contain simple, legible text that is readable from the back of the room.
- Characters should be at least 0.25 inches (6.5 mm) in height to be legible when projected. A good rule of thumb is that text should be 20 point or larger (including labels in inserted graphics). Anything smaller is difficult to read.
- Make symbols at least 1/3 the height of a capital letter.
- For computer presentations, use all of the available screen area using landscape orientation with very thin margins. If your institutions logo must be included, place it at the bottom of the slide.
- Sans serif fonts (e.g., Arial, Calibri, and Helvetica) are much easier to read than serif fonts (e.g., Times New Roman) especially from afar. Avoid thin fonts (e.g., the horizontal bar of an e may be lost at low resolution thereby registering as a c.)
- Do not use underlining to emphasize text. It makes the text harder to read.
- All axes on figures should be labeled and the text size for labels and axis numbers or letters should be large enough to read.
- No more than 3–5 major points per slide.
- Consistency across slides is desirable. Use the same background, font, font size, etc. across all slides.
- Use appropriate colors. Avoid complicated backgrounds and do not exceed four colors per slide. Backgrounds that change from dark to light and back again are difficult to read. Keep it simple.
- If using a dark background (dark blue works best), use white or yellow lettering. If you are preparing slides that may be printed to paper, a dark background is not appropriate.
- If using light backgrounds (white, off-white), use dark blue, dark brown or black lettering.
- DVDs should be in standard format.

Presentation
- Organize your talk with introduction, body, and summary or conclusion. Include only ideas, results, and concepts that can be explained adequately in the allotted time. Four elements to include are:
  (1) Statement of research problem
  (2) Research methodology
  (3) Review of results
  (4) Conclusions
- Generally, no more than 3–5 key points can be covered adequately in a 15-minute talk so keep it concise.
- Rehearse your talk so you can confidently deliver it in the allotted time. Session Chairs have been instructed to adhere to the time schedule and to stop your presentation if you run over.
- An A/V preview room will be available for viewing computer presentations before your session starts. It is advisable to preview your presentation because in most cases you will be asked to load your presentation onto a computer, which may have different software or a different configuration from your own computer.
- Arrive early enough so that you can meet the session chair, load your presentation on the computer provided, and familiarize yourself with the microphone, computer slide controls, laser pointer, and other equipment that you will use during your presentation. There will be many presenters loading their materials just prior to the session so it is very important that you check that all multi-media elements (e.g., sounds or videos) play accurately prior to the day of your session.
- Each time you display a visual aid the audience needs time to interpret it. Describe the abscissa, ordinate, units, and the legend for each figure. If the shape of a curve or some other feature is important, tell the audience what they should observe to grasp the point. They won't have time to figure it out for themselves. A popular myth is that a technical audience requires a lot of technical details. Less can be more.
- Turn off your cell phone prior to your talk and put it away from your body. Cell phones can interfere with the speakers and the wireless microphone.

38. SUGGESTIONS FOR EFFECTIVE POSTER PRESENTATIONS
Content
- The poster should be centered around two or three key points supported by the title, figures, and text.
- The poster should be able to "stand alone." That is, it should be understandable even when you are not present to explain, discuss, and answer questions. This quality is

highly desirable since you may not be present the entire time posters are on display, and when you are engaged in discussion with one person, others may want to study the poster without interrupting an ongoing dialogue.
- To meet the "stand alone" criteria, it is suggested that the poster include the following elements, as appropriate:
  - Background
  - Objective, purpose, or goal
  - Hypotheses
  - Methodology
  - Results (including data, figures, or tables)
  - Discussion
  - Implications and future research
  - References and Acknowledgments

Design and layout
- A board approximately 8 ft. wide × 4 ft. high will be provided for the display of each poster. Supplies will be available for attaching the poster to the display board. Each board will be marked with an abstract number.
- Typically posters are arranged from left to right and top to bottom. Numbering sections or placing arrows between sections can help guide the viewer through the poster.
- Centered at the top of the poster, include a section with the abstract number, paper title, and author names and affiliations. An institutional logo may be added. Keep the design relatively simple and uncluttered. Avoid glossy paper.

Lettering and text
- Font size for the title should be large (e.g., 70-point font)
- Font size for the main elements should be large enough to facilitate readability from 2 yards away (e.g., 32 point font). The font size for other elements, such as references, may be smaller (e.g., 20–24 point font).
- Sans serif fonts (e.g., Arial, Calibri, Helvetica) are much easier to read than serif fonts (e.g., Times New Roman).
- Text should be brief and presented in a bullet-point list as much as possible. Long paragraphs are difficult to read in a poster presentation setting.

Visuals
- Graphs, photographs, and schematics should be large enough to see from 2 yards (e.g., 8 × 10 inches).
- Figure captions or bulleted annotation of major findings next to figures are essential. To ensure that all visual elements are "stand alone," axes should be labeled and all symbols should be explained.
- Tables should be used sparingly and presented in a simplified format.

Presentation
- Prepare a brief oral summary of your poster and short answers to likely questions in advance.
- The presentation should cover the key points of the poster so that the audience can understand the main findings. Further details of the work should be left for discussion after the initial poster presentation.
- It is recommended that authors practice their poster presentation in front of colleagues before the meeting. Authors should request feedback about the oral presentation as well as poster content and layout.

Other suggestions
- You may wish to prepare reduced-size copies of the poster (e.g., 8 1/2 × 11 sheets) to distribute to interested audience members.

39. GUIDELINES FOR USE OF COMPUTER PROJECTION
- A PC computer with audio playback capability and a projector will be provided in each meeting room on which all authors who plan to use computer projection should load their presentations.
- Authors should bring computer presentations on a USB drive to load onto the provided computer and should arrive at the meeting rooms at least 30 minutes before the start of their sessions.
- Assistance in loading presentations onto the computers will be provided.
- Note that only PC format will be supported so authors using Macs to prepare their presentation must save their presentations so that the projection works when the presentation is run from the PC in the session room. Also, authors who plan to play audio or video clips during their presentations should insure that their sound (or other) files are also saved on the USB drive and are also uploaded to the PC in the session room. Presenters should also check that the links to the sound (and other) files in the presentation still work after everything has been loaded onto the session room computer.

Using your own computer (only if you really need to!)
It is essential that each speaker who plans to use his/her own laptop connect to the computer projection system in the A/V preview room prior to session start time to verify that the presentation will work properly. Technical assistance is available in the A/V preview room at the meeting, but not in session rooms. Presenters whose computers fail to project for any reason will not be granted extra time.

General Guidelines
- Set your computer's screen resolution to 1024x768 pixels or to the resolution indicated by the AV technical support. If it looks OK, it will probably look OK to your audience during your presentation.
- Remember that graphics can be animated or quickly toggled among several options: Comparisons between figures may be made temporally rather than spatially.
- Animations often run more slowly on laptops connected to computer video projectors than when not so connected. Test the effectiveness of your animations before your assigned presentation time on a similar projection system (e.g., in the A/V preview room). Avoid real-time calculations in favor of pre-calculation and saving of images.
- If you will use your own laptop instead of the computer provided, connect your laptop to the projector during the question/answer period of the previous speaker. It is good protocol to initiate your slide show (e.g., run PowerPoint) immediately once connected, so the audience doesn't have to wait. If there are any problems, the session chair will endeavor to assist you, but it is your responsibility to ensure that the technical details have been worked out ahead of time.

- During the presentation have your laptop running with main power instead of using battery power to insure that the laptop is running at full CPU speed. This will also guarantee that your laptop does not run out of power during your presentation.

SPECIFIC HARDWARE CONFIGURATIONS
Macintosh
- Older Macs require a special adapter to connect the video output port to the standard 15-pin male DIN connector. Make sure you have one with you.
- Hook everything up before powering anything on. (Connect the computer to the RGB input on the projector).
- Turn the projector on and boot up the Macintosh. If this doesn't work immediately, you should make sure that your monitor resolution is set to 1024x768 for an XGA projector or at least 640x480 for an older VGA projector. (1024x768 will most always work.). You should also make sure that your monitor controls are set to mirroring. If it's an older powerbook, it may not have video mirroring, but something called simulscan, which is essentially the same.
- Depending upon the vintage of your Mac, you may have to reboot once it is connected to the computer projector or switcher. Hint: you can reboot while connected to the computer projector in the A/V preview room in advance of your presentation, then put your computer to sleep. Macs thus booted will retain the memory of this connection when awakened from sleep.
- Depending upon the vintage of your system software, you may find that the default video mode is a side-by-side configuration of monitor windows (the test for this will be that you see no menus or cursor on your desktop; the cursor will slide from the projected image onto your laptop's screen as it is moved). Go to Control Panels, Monitors, configuration, and drag the larger window onto the smaller one. This produces a mirror-image of the projected image on your laptop's screen.
- Also depending upon your system software, either the Control Panels will automatically detect the video projector's resolution and frame rate, or you will have to set it manually. If it is not set at a commensurable resolution, the projector may not show an image. Experiment ahead of time with resolution and color depth settings in the A/V preview room (please don't waste valuable time adjusting the Control Panel settings during your allotted session time).

PC
- Make sure your computer has the standard female 15-pin DE-15 video output connector. Some computers require an adaptor.
- Once your computer is physically connected, you will need to toggle the video display on. Most PCS use either ALT-F5 or F6, as indicated by a little video monitor icon on the appropriate key. Some systems require more elaborate keystroke combinations to activate this feature. Verify your laptop's compatibility with the projector in the A/V preview room. Likewise, you may have to set your laptop's resolution and color depth via the monitor's Control Panel to match that of the projector, which settings you should verify prior to your session.

Linux
- Most Linux laptops have a function key marked CRT/LCD or two symbols representing computer versus projector. Often that key toggles on and off the VGA output of the computer, but in some cases, doing so will cause the computer to crash. One fix for this is to boot up the BIOS and look for a field marked CRT/LCD (or similar). This field can be set to Both, in which case the signal to the laptop is always presented to the VGA output jack on the back of the computer. Once connected to a computer projector, the signal will appear automatically, without toggling the function key. Once you get it working, don't touch it and it should continue to work, even after reboot.

40. DATES OF FUTURE ASA MEETINGS

For further information on any ASA meeting, or to obtain instructions for the preparation and submission of meeting abstracts, contact the Acoustical Society of America, 1305 Walt Whitman Road, Suite 300, Melville, NY 11747-4300; Telephone: 516-576-2360; Fax: 631-923-2875; E-mail: asa@aip.org

169th Meeting, Pittsburgh, Pennsylvania, 18–22 May 2015
170th Meeting, Jacksonville, Florida, 2–6 November 2015
171st Meeting, Salt Lake City, Utah, 23–27 May 2016
172nd Meeting, Honolulu, Hawaii, 28 November–2 December 2016.