

Biomedical Ultrasound/Bioresponse to Vibration Technical Committee Meeting
April 22, 2010 7:30 PM
Baltimore, MD

1. Welcome of New Attendees

About 50 in attendance. First time attendees introduced themselves.

3. New Technical Committee Name

The TC name was officially changed to Biomedical Acoustics at the end of the Baltimore meeting. To celebrate this momentous occasion, a new website has been created at

<http://acosoc.org/TechComm/BATC>

Minutes and other relevant information can be found at the new website. Suggestions for additional content, within reason, are welcome.

The name change will take some time to propagate through all official channels but should be fully in place for the Seattle meeting in 2011.

2. Google Mail List

You can sign up for the BA mail list by sending an email to:

ASA_BATC-subscribe@googlegroups.com or visit
http://groups.google.com/group/ASA_BATC

This is a separate email list from that maintained by the ASA and non-ASA members can join.

Note that the Google Group name was changed to ASA_BATC in accordance with the TC name change.

4. April 19-23, 2010 Baltimore, MD

The Baltimore meeting was notable for having taken place just after the volcanic eruption in Iceland. A fair number of talks were cancelled but the conference was nevertheless a success. A couple of speakers were able to make the trip in time for their talks and they are commended for their perseverance in what were difficult circumstances.

Speakers who could not attend because of volcanic induced flight disruptions can request a registration reimbursement from the ASA. Also, speakers who had to cancel their talk are eligible to submit the same abstract to a future meeting but keep in mind that the abstract gets published and there will be identical abstracts that appear when searching AIP Scitation.

Congratulations to:

Helmholtz-Rayleigh Interdisciplinary Silver Medal (BB & PA)
Ronald Roy

New Fellows

Jean-Yves Chapelon
Pascal P. Laugier
Keith A. Wear

Certificate of Appreciation to Trustees of Acoustical Society Foundation
Murray Strasberg

Student Paper Awardees

- 1st Prize - Kelley Garvin for her paper “Ultrasound standing wave fields induce endothelial cell sprouting within three-dimensional engineered tissue.”
- 2nd Prize - Christian Anderson for his paper “Comparison of conventional ultrasonic phase velocity and attenuation measurements of cancellous bone to estimates obtained using Bayesian probability theory.”

Thanks to:

TPOM representatives

Keith Wear and Carr Everbach

Special Session Organizers

[Ultrasonic characterization of bone](#)

Keith Wear

[Ultrasound induced cellular bioeffects](#)

Carr Everbach

[Numerical modeling for medical ultrasound.](#)

Robert McGough and Vera Khokhlova

[Ultrasonically activated agents](#)

Oliver Kripfgans

[Blast-induced traumatic brain injury: Mechanisms, assessment, therapy, and mitigation](#)

Steve Kargl, Willy Moss and Tom Matula

Contributed session chairs

Parag Chitnis, Matthew Urban, Diane Dalecki, and James McLaughlin

Fellow's Luncheon “Mentor”

Diane Dalecki (accompanying students was Robert Valtierra from Boston U.)

Student Council Rep

Derek Thomas (incoming)

ASACOS

Peter Kaczkowski and Vera Khokhlova

Web coordinator (outgoing)

Shira Broschat

Membership Committee

Christy Holland

Medals and Awards

Lawrence Crum

BA Related JASA and JASA-EL Associate Editors (Based on PACS)

Charles Church, Doug Miller, Doug Mast, Robin Cleveland, Mardi Hastings, Oleg Sapozhnikov, Paul Barbone, Joel Mobley, Steve Kargl, Mark Hamilton, Tom Matula, Joel Mobley, and Andrew Szeri

Special thanks to the refreshment crew of Derek Thomas, Jon Kracht and Phil Anderson and their innovative use of a baby stroller for liquid transport.

5. Student Council Report

Update from Derek Thomas. This is his first meeting as the student rep for BA. There was no information from the student council to pass on to the TC.

6. ASACOS (Standards)

Peter Kacskowski and Vera Khokhlova are now sharing ASACOS duties. No updates to pass on to the TC.

Don't forget ASA members receive up to 5 free standards per year. Info is sent out via email.

Wes Nyborg stepped down as chair of S1/WG 22 "Bubble Detection and Cavitation Monitoring" and this working group is no longer active. If anyone would like to take over as chair, please contact Peter, Vera, or Jeff.

7. Nov 15-19, 2010 Cancun

Special Sessions (In call for papers, Abstract deadline June 1)

[Biomedical applications of time reversal acoustics](#)

Armen Sarvazyan and Matthias Fink

[Doppler methods and blood-flow imaging in medical ultrasound](#)

Jonathan Mamou and Michael Oelze

[Image guided therapeutic ultrasound](#)

Tyrone Porter

[Ultrasound contrast agent for molecular imaging and therapy](#)

Azzdine Ammi and Saurabh Dattas

TPOM Rep: Jeff Ketterling

Don't forget student travel funds are available from ASA.

8. May 23-27, 2011 Seattle (Tom Matula is the Chair)

Tentative Special Sessions (to be finalized in Baltimore):

[Photons and phonons: Diagnostic and therapeutic applications](#)

Ron Silverman and Parag Chitnis

[Biomedical applications of acoustic standing waves](#)

Armen Sarvazyan and Martin Wiklund

[Tissue erosion techniques in therapeutic ultrasound](#)

Larry Crum Vera Khokhlova

[HIFU-induced thermal lesion imaging with ultrasound](#)

Larry Crum Vera Khokhlova

[Subharmonic and harmonic imaging with acoustic contrast agents](#)

Michel Versluis and Jeff Ketterling

[Student poster competition \(see Item 11\)](#)

Tyrone Porter, Todd Hay, and Kevin Haworth

TPOM Rep (Feb 2011): Francesco Curra

Maybe a salmon cruise banquet to Tillicum Village on Wed night. About ½ of those in attendance said they would take the seven-hour cruise as long as Gilligan wasn't on the boat.

9. Future Meetings (Tentative session ideas are welcome)

Oct 31 – Nov 4 2011, San Diego Town and Country Resort

[Thermal and vapor driven cavitation](#)

Wayne Kreider

[Metrology of High Intensity Ultrasound](#)

Peter Kaczkowski and Gail ter Haar

[Medical Acoustics in Urology](#) (Topical Meeting?)

Mike Bailey and Robin Cleveland

May 14-18 2012, Hong Kong (Joint with WESTPRAC and ASC)

Ideally find Asian co-chairs for sessions.

Long way out but it is a good time to talk with Asian colleagues.

Student travel subsidies will be available.

Fall 2012, Site not yet selected but Midwest likely in mid October

June 2-7, 2013 Montreal (Joint with Canadian Acoustical Association)

Spring, 2014 Providence, RI (World Cup Year)

10. New ASA website in works

New servers being implemented and ASA website will undergo a major overhaul before too long. Will be easier to navigate and will look like a modern web site.

There will also be a companion site, acoustics.org, that will act as a portal for other features such as TC websites.

11. Student Paper Award

Tyrone Porter is Chair of an Ad Hoc BA and PA Student Paper Award Committee with the assistance of Todd Hay and Kevin Haworth.

A new format was implemented in Baltimore with goal of saturating the audience with reviewer forms. The number of scorers was increased and while scoring was still in a fairly tight range, the results were less prone to skewing by one reviewer.

A discussion was started, again, about a student poster competition. The idea would be to have the students summarize in 2-4 minutes the contents of their poster to a group of judges. The judges would then confer and choose a winner. The intent is to provide a more consistent and uniform method of judging. It was suggested that extra effort for the poster is reasonable if a student would like to win an award. Students would still be able to present in an oral session.

The plan is to try this new system next year in Seattle to see how it works out. We will request light refreshments to encourage general attendance. The poster competition will be announced in the Seattle Call for Papers and possibly will require a special session announcement as well. Abstracts would still be submitted for oral presentation and an extra poster session would be held for students who elect to take part in the competition. The poster session would not compete with any other BA sessions.

12. Update scope of BA (listed online under Rules, Appendix A)

We were asked to update the description of the TC. Christy Holland, Charlie Church, Doug Mast and Ron Roy served on an Ad Hoc Committee to develop a new scope. Vote on final version in Baltimore.

Current Scope

Includes, but is not limited to, the effects of hand-arm vibration, the effects of whole-body vibration, touch as a communicative sense, impact, and the effects of infrasound and ultrasound.

Proposed Scope

Concerned with the study of the interactions of acoustic waves with biological materials, including cells, tissues, organ systems and entire organisms. Relevant areas of interest include but are not limited to:

1. Diagnostic and therapeutic applications of acoustics in medicine
2. Biological effects of exposure to mechanical vibration and acoustic waves
3. Acoustic propagation in biological materials
4. Instrumentation
5. Ultrasound field calibration, exposimetry and dosimetry
6. Ultrasound contrast agents
7. Medical image and signal processing
8. Characterization and processing of biological materials
9. Physiological measurements

Vote:

Should the proposed scope be designated as the official scope of the TC as listed in the Society Rules? A vote was taken and the majority of attendees were in favor of adopting the new scope in the form listed above.

13. Special Issues in JASA

Editor in Chief is open to special issues in JASA devoted to one area. Not whole issue from front to back, but a group of papers within an area. Could have a guest editorial that introduces the content. Suggestions can be made to Allan Pierce.

There will be a special issue in JASA from PA called "Acoustics of Bubbles and Cavitation". Due date for submission is Nov. 23, 2010.

14. POMA Editor

Tim Leighton is stepping down as the BA POMA associate editor and a replacement is needed. The Associate Editor mainly acts as a quality control filter and there is not a formal review process.

Charlie Church agreed to act as the new POMA associate editor for BA.

15. Special Issues in Acoustic Today

Dick Stern has indicated that a full issue of Acoustics Today can be devoted to work in one TC. This would involve three contributions from BA. If anyone from BA would like to contribute to Acoustics Today please contact Dick or myself.

16. Research Direction Papers in JASA

Suggestion to write "direction papers" for publication in JASA on directions of research in TCs. Would really require a workshop type of meeting after which a collaborative paper would be written

taking into account the various positions. Can be useful to guide funding agencies as to what are the emerging areas of research for funding. Downside is that it can be difficult to get a balanced perspective because there is a risk of a few voices dominating content.

The TC again voiced reluctance to take part in this initiative due to worry about inherent bias when a small group writes a position paper. Also, it was felt that funding agencies such as NIH are better equipped for this type of endeavor because they can more easily assemble a diverse group and usually have a direction they are leaning toward anyway.

17. Discoveries & Breakthroughs Inside Acoustics <http://www.aip.org/dbis/ASA/>

The ASA brings Discoveries and Breakthroughs Inside Science to its members and to local English and Spanish TV newscasts all over the US. With accurate, scientifically reviewed and reliable science information, DBIS covers many recent developments in acoustics that we use every day. These stories reach an audience that does not have regular access to quality science news.

Members are encouraged to submit story ideas via the website.

18. PACS

Need to reorganize PACS so they are more in line with TC interests. This is a particular problem for BA because we are grouped with Animal Bioacoustics. Steve Kargl is acting as the BA liaison to the Editor in Chief as the PACS are reorganized. In Baltimore, reps for all the TCs met on Wednesday to discuss how to start the process and Steve will provide an update in Cancun.

19. ASA/OSA student outreach posters

Looking for snappy ideas for posters to be sent to students. Things with animals and musical instruments were said to be the most appealing to students. Things with bloody organs are less appealing. OSA examples are at below link and you can contact Vic Sparrow or Robin Cleveland for more details or to suggest a topic.

<http://www.osa.org/educationresources/youtheducation/classroommaterials/Translations/default.aspx>

20. Other business

A discussion was started regarding why BA has their TC on Th night instead of earlier in the week. It was pointed out that people tend to trickle out from the meeting at the end of the week and BA loses some fraction of potential attendees due to this. A whole five days is usually more than most people want to attend and many want to cut out the Monday or Friday, depending on the schedule. As the end of the conference is usually not desirable, placing sessions on Friday does not necessarily keep people from leaving.

Some ideas to address this loss of potential Thursday night TC evening attendees were to swap every other meeting with PA on Tuesday night (most likely a 1000 pound elephant problem based on comments) or move to Monday or Wed night (generally popular based on the initial response). If the TC were moved earlier in the week, then BA sessions would be geared towards the earlier part of the week. The goal is not to eliminate talks on Th and Fri, but rather to use up the earlier part of the week first and if there are enough sessions, then to continue into Friday. In general, conferences peak in the 1st or 2nd day and then slowly lose attendees.

The movement of the TC meeting night would break with tradition but the general consensus was that it would be worth testing in Cancun or Seattle. The main issues will be whether Mon or Wed nights present a conflict in terms of other conference activities such that we are not permitted to occupy these nights. Wed seems doable because at least one other TC uses this night and Mon is

off limits because of the short courses. Therefore we will seek to have the Cancun meeting on Wed night starting at 7:45 or 8 pm or move it to Tuesday at 8:15 towards the end of the PA meeting.

Any movement of the TC evening will be heavily publicized so no one will be caught off guard.

22. Meeting Adjourned at 8:45 pm

Jeff Ketterling

Chair of Biomedical Acoustics, the TC formerly known as Biomedical Ultrasound/Bioresponse to Vibration