



International Union of Radio Science U.S. Commission B

	<i>Please reply to:</i>	
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J. Volakis, Vice-Chair	Dept. of ECE, Univ. of Utah	fax: (801) 581-5281
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MINUTES Commission B Business meeting 2014 URSI Meeting Boulder, CO, USA January 19, 2014

1. Meeting called to order at 5:00 pm.
2. Chair Sembiam Rengarajan welcomed the members and guests.
3. The minutes of the business meeting held in Orlando, FL in July 2013 was approved.
4. In memoriam to Dr. Arthur Oliner, past chair of USNC-URSI Commissions B and D: A moment of silence was observed.
5. Secretary Jamesina Simpson is stepping down as secretary of Commission B. Reyhan Baktur of Utah State University will serve as the next secretary.
6. Website Information
USNC-B: <http://www.ece.uic.edu/~URSICommb/>
Minutes from the Business Meetings (back to 1997) are there.
Other links:
USNC: <http://www.usnc-ursi.org/>
International URSI-B: <http://www.ursi.org/B/index.htm>
International URSI: <http://www.ursi.org/>
7. Announcements:
Officers of various URSI offices for the triennium 2012-2014 were reviewed.
USNC Commission B:
Sembiam Rengarajan (chair)
John Volakis (vice-chair)
Jamesina Simpson / Reyhan Baktur (secretary)

Sharad Laxpati (webmaster)
Edward Rothwell (membership)
Christos Christodoulou (technical activities)

USNC/URSI:

Chair: Steven C. Reising
Past-Chair: Yahya Rahmat-Samii
Secretary and Chair-Elect: David Jackson
Accounts Manager: Gary Brown

URSI International Commission B

Chair: Giuliano Manara (Italy)
Vice-Chair: Ari Sihvola (Finland)

URSI International:

President: Phil Wilkinson (Australia)
Past-President: François Lefeuvre (France)
Vice Presidents:
 Subra Ananthakrishnan (India)
 Makato Ando (Japan)
 Paul Cannon (UK)
 George Uslenghi (USA)
Secretary-General: Paul Lagasse (Belgium)
Asst. Secretary-General (Publications): Ross Stone (USA)

8. Upcoming Joint Symposia

- IEEE AP-S/URSI, Memphis, TN, July 6-12, 2014 (paper submission deadline Jan. 15, 2014; Atef Elsherbeni)
- July 19-25, 2015, Vancouver, BC, Canada (Lot Shafai)
- June 25-July 3, 2016, San Juan, Puerto Rico (Scott Tyo)
- July 9-15, 2017, San Diego, CA (Daniel Sievenpiper)
- 2018: Steve Best (Boston or Las Vegas?)
- 2019: John Papapolymerou (Atlanta, GA)

9. Other Meetings of Interest

- IEEE Radio and Wireless Symposium (RWS2014), Jan. 19-22, 2014, Newport Beach, CA
- 2014 International Workshop on Antenna Technology (IWAT 2014) Small Antennas, Novel EM Structures and Materials, and Applications, March 4-6, 2014, Sydney, Australia.
- European Conference on Antennas & Propagation (EuCAP 2014), April 6-11, 2014, The Hague, The Netherlands
- RADIO 2014: Radio and Antenna Days of the Indian Ocean 2014, April 7-10, 2014, Flic-en-Flac, Mauritius
- ICEAA 2014/APWC: International Conference on Electromagnetics in Advanced Applications/IEEE AP-S Antennas and Propagation for Wireless Communications, August 3-9, 2014, Palm Beach, Aruba
- XXXI URSI General Assembly and Scientific Symposium, Beijing, China, August 16-23, 2014. Note you will need a visa to travel to China, and it is strongly suggested

- that a visa service is used. The GA will be held at the Beijing Conference Center. If the number 9 building is available for your housing, it is recommended you stay there because it is immediately adjacent to where the meeting rooms will be.
- Metamaterials 2014: Eighth International Congress on Advances on Electromagnetic Materials in Microwaves and Optics, August 25-28, 2014, Copenhagen, Denmark
 - ISAP 2013: International Symposium on Antennas and Propagation, December 2-5, 2014, Kaohsiung, Taiwan
 - Additional future meetings may be found on the AP-S and URSI websites.
(<http://www.ieeeaps.org/> and <http://www.ursi.org/>)
10. Beginning in 2015, URSI will be holding a scientific conference every year
- GASS: 2014, 2017, 2020
 - AT-RASC: 2015, 2018, 2021
 - AP-RASC: 2016, 2019, 2022
- AT-RASC: Atlantic Radio Science Conference
- All 10 URSI Commissions
 - May 18-25, 2015, ExpoMeloneras Convention Centre, Gran Canaria
- AP-RASC: Asia-Pacific Radio Science Conference
- All 10 URSI Commissions
 - August 22-26, 2016, Jeju Island, Korea
11. We have about \$90k to support 90 attendees at \$1k each to attend the URSI GASS in Beijing. If you plan to attend the URSI GASS, please let your Commission Chair know (Sembiam for B).
12. George Uslenghi made a preliminary announcement for the 1st URSI Atlantic Radio Science Conference (URSI AT-RASC) that will be held on the Canary Islands, May 18-25, 2015. This will be held every 3 years.
13. Remember that there will be no NRSM in Boulder 2015. You are encouraged to attend the IEEE AP-S and USNC/CNC North American Radio Science Meeting in Vancouver, BC, July 19-25, 2015.
14. Please encourage your students to submit full papers for the Ernest K. Smith USNC-URSI Student Paper Competition to be held at the 2016 NRSM in Boulder. We need more applicants.
15. David Jackson announced that the USNC wants a potential list of special sessions for the 2016 National Radio Science Meeting in Boulder, CO. Three topics were proposed: (1) Telemedicine joint with K; (2) Terahertz applications; and (3) Printed antennas.
16. How do your members feel about archiving their abstracts on IEEE Xplore – what are the reasons for not doing it? About 50% chose to archive their abstracts in 2013.

Feedback from the Commission Members: It's nice to have the option to archive or not. URSI is a place to talk about ongoing work that you may not be ready to archive.

However, by not archiving there is otherwise no record of URSI presentations, in case you need to prove you gave the talk. For some, there could be patent issues if published in Xplore. IEEE policy is that if the work has been presented before, it constitutes publication and should be cited.

17. What are your suggestions for the next Secretary/Chair-Elect of USNC-URSI for the 2015-2017 URSI triennium (to replace David Jackson who becomes Chair in 2015)

If you have any nominations, please email Sembiam by Feb. 15

18. Does Commission B have suggestions for Plenary Session topics for 2016 and 2017 that B can lead along with another Commission? B can collaborate with E, J, or K.

Telemedicine with Commission K

19. Candidates to replace Danilo Erricolo as chair of the student paper competition and student travel awards.

Please email Sembiam with your suggestions. Erdem Topsakal volunteered.

20. Proposed dates for the 2016 NRSM in Boulder, CO are Jan. 6-9, 2016.

21. Nominations for the Early Career representative of the International URSI Commission are due by March 1 (must be under age 36 by GASS in Beijing in August 2014 and present at the GASS and URSI business meetings, and must contribute to initiatives to increase the involvement of young scientists and young researchers in URSI and its governing body)

22. Nominations for International URSI Commission B Vice-Chair: Deadline to nominate candidates is March 1, 2014. If we have multiple nominations, we will elect one.

23. Proposed venue for the 2019 URSI EM Theory Symposium? San Diego, CA, August 2019? Ross Stone and Sembiam have been thinking of submitting a proposal to international URSI Commission B with help from Three, Dimensions, Meeting Planners.

24. Report of Technical Activities Committee

Members

Christos Christodoulou (Chair) – University of New Mexico

Shanker Balasubramanian - Michigan State

Hossein Mosallaei - Northeastern Univ.

Erdem Topsakal - Mississippi State Univ.

Manos Tentzeris - Georgia Tech

Christos Chris presented the Technical Activities Committee report (attached at the end of these minutes).

25. Report of the Membership Committee presented by Don Wilton.

Members

Ed Rothwell (Chair) – Michigan State University
George Hanson – University of Wisconsin -- Milwaukee
Kathleen Melde – University of Arizona
Don Wilton – University of Houston

Please nominate your colleagues and students. To become an associate member, 2-3 journal publications are required and at least one URSI presentation (in B). Note that according to the USNC-URSI, only U.S. citizens and permanent residents may be members of the USNC-URSI (citizens from other countries are encouraged to join their respective URSI chapters).

We reviewed full member nominations for Joseph Costantine (California State University – Fullerton) and Youssef Antoine Tawk (Research Assistant Professor at the University of New Mexico). Both were approved.

26. Old Business: None.

27. New Business: None.

28. Adjourned at 5:51 pm.

Guests in Attendance

Asimina Kiourti (Ohio State University), Reza Rezaiesarlak (Virginia Tech), Caner Gurlu (U of California – Irvine), Kamalesh Sainath (OSU), Hao Xin (University of Arizona)

Members in Attendance

Prof. Sembiam Rengarajan, Prof. Jamesina Simpson, Prof. Reyhan Baktur, Dr. James Breakall, Prof. Filippo Capolino, Dr. Christos Christodoulou, Dr. William A. Davis, Prof. Danilo Erricolo, Dr. Michael Mavrilla, Dr. Gregory Huff, Prof. David R. Jackson, Prof. Majid Manteghi, Prof. Mahta Moghaddam, Prof. Yahya Rahmat-Samii, Dr. Ross Stone, Prof. Erdem Topsakal, Prof. John Volakis, Dr. Wasyliwskyi, Prof. Donald R. Wilton,

Respectfully submitted by
Jamesina Simpson
Secretary



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USNC Commission-B Business Meeting

Thursday, January 9, 2014

5:00 – 6:00 p.m.

Room 1B40

2014 USNC-URSI National Radio Science Meeting,
Boulder, CO, January 7-11, 2014



AGENDA

USNC Commission-B Business Meeting

- Welcome to members and guests
- Approval of the minutes of the Orlando meeting, July 2013

CHAIR REPORT

COMMITTEE REPORTS

- Technical Activities Report (Christos Christodoulou)
- Membership Committee (Edward Rothwell/Don Wilton)
- Old business
- New business
- Adjourn



In memoriam

USNC Commission-B
Business Meeting

Dr. Arthur Oliner



- Presidential Fellow of Polytechnic Institute of New York University (NYU-Poly) and Professor Emeritus of Electrophysics.
- Member of the National Academy of Engineering.
- Fellow of the IEEE, the AAAS, and the British IEE.
- Honorary Life Member, IEEE MTT-S.
- Honorary doctorate from the University of Rome, Italy.
- Author or co-author of about 300 papers and books.
- [Past Chair, USNC-URSI Commissions B and D](#)
- [URSI Van der Pol Gold medal, 1990.](#)
- IEEE Heinrich Hertz Medal, 2000.



Chair Report

USNC Commission-B
Business Meeting

USNC-B Officers 2012-2014

Chair: Sembiam Rengarajan

Vice-Chair: John Volakis

Secretary: Jamesina Simpson

Reyhan Baktur

Chair, TAC: Christos Christodoulou

Chair, Membership Committee: Edward Rothwell

USNC-B Webmaster: Sharad Laxpati



Chair Report

USNC Commission-B
Business Meeting

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Past-Chair: Yahya Rahmat-Samii

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Chair Report

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Business Meeting

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Business Meeting

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Paul Cannon (UK)

George Uslenghi (USA)

Secretary-General: Paul Lagasse (Belgium)

Asst. Secretary-General (Publications): Ross Stone (USA)



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USNC Commission-B
Business Meeting

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Chair Report

USNC Commission-B
Business Meeting

Upcoming Joint Symposia

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- June 25-July 3, 2016, San Juan, Puerto Rico. Scott Tyo
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Chair Report

USNC Commission-B
Business Meeting

Other meetings of interest

- IEEE Radio and Wireless Symposium (RWS2014),
January 19-22, 2014, Newport Beach, CA
- 2014 International Workshop on Antenna Technology (IWAT 2014)
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Chair Report

USNC Commission-B
Business Meeting

Other meetings of interest

- ICEAA 2014/APWC: International Conference on Electromagnetics in Advanced Applications/IEEE AP-S Antennas and Propagation for Wireless Communications, August 3-9, 2014, Palm Beach, Aruba
- URSI GASS 2014: XXXI General Assembly of the International Union of Radio Science, August 16-23, 2014, Beijing, China (CIE) **Paper submission deadline Feb. 15, 2014.**
You will need a Chinese visa. Takes about a week to get.
Strongly suggest using visa service.

Additional future meetings may be found on the AP-S and URSI websites. (<http://www.ieeeaps.org/> and <http://www.ursi.org/>)



Chair Report

USNC Commission-B
Business Meeting

Other meetings of interest

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Chair Report

USNC Commission-B
Business Meeting

Two New URSI Triennial Meetings

- Beginning in 2015, URSI will be holding a scientific conference every year
 - GASS: 2014, 2017, 2020
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- AT-RASC: Atlantic Radio Science Conference
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- AP-RASC: Asia-Pacific Radio Science Conference
 - All 10 URSI Commissions
 - August 22-26, 2016, Jeju Island, Korea



Chair Report

USNC Commission-B
Business Meeting

Announcements from USNC

- We need to decide on which members of our Commissions will receive partial travel support to attend the URSI GASS in Beijing on August 16-23, 2014. We will have a total of about \$90 K to support 90 attendees at \$1000 each. Commission Chairs will be asked to collect names of members who plan to attend after the submission deadline of Feb. 15. Applicants for partial travel support need to provide an assertion that will be able to cover the additional expenses of traveling to Beijing.
- Women in Radio Science reception, 7:00 pm tonight, TLC
- Papers B2-1 and B2-2 are delayed and will be presented following session B11, Friday 15:20 pm after coffee break in Rm 155.



Chair Report

USNC Commission-B
Business Meeting

Announcements from USNC

- You are encouraged to attend the First Hans Liebe Lecture special event during lunch on Friday.
- Remember that there is no NRSM in Boulder in 2015. You are encouraged to attend the IEEE AP-S Symposium and USNC/CNC North American Radio Science Meeting in Vancouver, BC, July 19-25, 2015.
- The submission deadline for this year's joint symposium (2014 IEEE AP-S Symposium and USNC-URSI Radio Science Meeting) is Jan. 15, 2014.
- Please encourage your students to submit full papers for the Ernest K. Smith USNC-URSI Student Paper Competition to be held at the 2016 NRSM in Boulder. We need more applicants.



Chair Report

USNC Commission-B
Business Meeting

Items that require Commission discussion and/or input

- How do your members feel about archiving their abstracts on IEEE Xplore – what are the reasons for not doing it? About 50% chose to archive their abstracts in 2013.



Chair Report

USNC Commission-B
Business Meeting

Items that require Commission discussion and/or input

- What are your suggestions for the next Secretary/Chair-Elect of USNC-URSI for the 2015-2017 URSI Triennium (to replace David Jackson who becomes Chair in 2015).

Those eligible for nomination are present or past voting members of the USNC-URSI Committee, including Commission Chairs, Members at Large, U.S. Officers of URSI, etc. Nominations will close on February 15, 2014. After February 15, the Officers will prepare a slate of candidates to be selected by the USNC-URSI Committee voting members by electronic ballot in the March 2014 timeframe.



Chair Report

USNC Commission-B
Business Meeting

Items that require Commission discussion and/or input

- Will Commission B participate in the 2016 IEEE AP-S Symposium/USNC-URSI Radio Science Meeting to be held in Puerto Rico on June 25 – July 3, 2016?



Chair Report

USNC Commission-B
Business Meeting

Items that require Commission discussion and/or input

- Does Commission B have suggestions for Plenary Session topics for 2016 and 2017 that B can lead along with another Commission? Topics should be timely and with potential for broad appeal among many URSI Commissions. Note: This does not apply to Commissions (A, D, C, F, G, H), since they were recently involved with organizing plenary sessions. B can collaborate with E, J or K.
- Telemedicine with K?



Chair Report

USNC Commission-B
Business Meeting

Items that require Commission discussion and/or input

- Does Commission B have suggestions for candidates to replace Danilo Erricolo as chair of the Student Paper Competition and Student Travel Awards.
- The proposed dates for the 2016 NRSM in Boulder, CO are Jan. 6-9, 2016 (Wednesday-Saturday). Any comments on this? (Note: Saturday Jan. 9 will only be used as a conference day if the number of submitted papers requires it.)



Chair Report

USNC Commission-B
Business Meeting

Items from International URSI Commission B

- Nomination for Early Career Representative of the International URSI Commission B by March 1.
- Must be under the age of 36 at the GASS in Beijing in August 2014.
- Must be present at the GASS and URSI business meetings (in GASS and EMTS?)
- Must contribute to initiatives to increase the involvement of young scientists and young researchers in URSI and its governing bodies.



Chair Report

USNC Commission-B
Business Meeting

Items from International URSI Commission B

- Nomination for the Vice-Chair of the International URSI Commission B.



Chair Report

USNC Commission-B
Business Meeting

Items that require Commission discussion and/or input

- Proposal for a venue for the 2019 URSI EM Theory Symposium.
- San Diego, CA, August 2019?
- Ross Stone and I have been thinking of submitting a proposal to International URSI Commission B with help from Three Dimensions, Meeting Planners.



Committee Report

USNC Commission-B
Business Meeting

Technical Activities Report: Christos Christodoulou



Committee Report

USNC Commission-B
Business Meeting

Membership Committee: Ed Rothwell/Don Wilton



Chair Report

USNC Commission-B
Business Meeting

- ❖ Old Business?
- ❖ New Business?
- ❖ Adjourn



URSI Commission-B Special Sessions & Stats

January 2014 Boulder, Colorado

**Christos Christodoulou
University of New Mexico**

All 2013 URSI-B Boulder Sessions

Session Title	Number of papers	URSI Commission	Chairs or Organizers
Complex Media	10	B	Kubilay Sertel Filippo Capolino
Antenna Arrays	5	B	Yahya Rahmat-Samii Karl Warnick
Antenna Theory, Design and Measurement	10	B	John Volakis Sembiam Rengarajan
Numerical Methods	10	B	Branislav Notaros Donald Wilton
Inverse Scattering	5	B	Kamal Sarabandi Danilo Erricolo
Wideband Antennas	5	B	Dejan Filipovic Gregory Huff
Electromagnetic Theory	10	B	David Jackson Piergiorgio Uslenghi

All 2014 URSI-B Boulder Sessions

Session Title	Number of papers	Chairs or Organizers
Advances in Antenna Arrays	9	John Volakis Atef Elsherbeni
Metamaterials Structures	10	Filippo Capolino Yahya Rahmat-Samii
Antenna Theory, Design and Measurement	10	Dejan Filipovic Christos Christodoulou
Scattering and Inverse Scattering	5	Danilo Erricolo Piergiorgio Uslenghi
Wideband Antennas	4	Kubilay Sertel Sembiam Rengarajan
Complex Media & Novel Materials for Antennas	5	James Breakall Michael Havrilla
Guided Waves and Waveguiding Structures	4	Filippo Capolino Hao Xin,
Microstrip & Printed Devices and Antennas	5	Sembiam Rengarajan Gregory Huff
Electromagnetic Interaction and Coupling	5	David Jackson Zoya Popovic
Terahertz Applications	5	Hao Xin John Volakis
Antenna Theory and Design	4	Everett Farr Gregory Huff
Numerical Methods	6	Branislav Notaros Atef Elsherbeni,

2013 URSI-B Joint Sessions at Boulder

Session Title	Number of papers	URSI Commission	Organizers
Sensors for Independent Living	5	B/K	Erdem Topsakal John Volakis
Cognitive Radio and Radar	6	B/C	Amir Zaghloul Christos Christodoulou
Biophotonics	10	B/K	Ilker Capoglu Jamesina Simpson
Developments in Array Technology for Radio Astronomy	11	B/J	Karl Warnick John Volakis

2014 URSI-B Joint Sessions at Boulder

Session Title	Number of papers	URSI Commission	Organizers
Biophotonics	5	B/K	Jamesina Simpson Ilker Capoglu
Small Satellite Radio Science and Technology	10	B/F	William Blackwell Reyhan Baktur,
Cognitive Radio and Signal Processing	5	B/C	Christos Christodoulou Jean-Francois Chamberland
Spectrum Challenges and Changes	9	B/CE	Lawrence Cohen Thomas Higgins
Wireless Power Transfer and Energy Harvesting Systems	5	B/CE	Majid Manteghi Danilo Erricolo
Advances in Human Body Modeling for Sensing	9	B/K	Yahya Rahmat-Samii Erdem Topsakal
Terahertz Medical Imaging	9	B/K	Kubilay Sertel Zachary Taylor

2014 URSI Boulder Summary

	Number of Sessions	Number of Papers
URSI Commission-B Total	12 (B) 1 (C/B joint) 1 (F/B joint) 2 (CE/B joint) <u>3 (K/B joint)</u> 19 (Total)	72 5 10 14 <u>23</u> 124
URSI Total (All Commissions)	52	394

2014 URSI B Papers (Boulder, Colorado), attendance:

Total Papers (including joint) in all Sessions: 394 (124 URSI B, including Joint)

URSI B only papers : 72

Papers in joint sessions: 52

2013 URSI Boulder Summary

	Number of Sessions	Number of Papers
URSI Commission-B Total	7 (B) 1 (C/B joint) 1 (J/B joint) 2 (K/B joint) 13 (Total)	55 6 11 <u>15</u> 87
URSI Total (All Commissions)	47	368

2013 URSI B Papers (Boulder, Colorado), attendance:

Total Papers (including joint) in all Sessions: 368 (87 URSI B, including Joint) 24%

URSI B only papers : 55

Papers in joint sessions: 32

USNC-URSI National Radio Science Meeting					
Special Sessions since 2010					
	2010	2011	2012	2013	2014
	3	9	4	4	7