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-July3, 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
   • 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.

- ISAP 2013: International Symposium on Antennas and Propagation, December 2-5, 2014, Kaohsiung, Taiwan

10. Beginning in 2015, URSI will be holding a scientific conference every year
   - 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.


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.


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

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 one of the commissions of the USNC-URSI (citizens from other countries are encouraged to join commissions of their respective URSI national committees).

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.


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. Wasyl Wasylikowski, Prof. Donald R. Wilton, Prof. Branislav M. Notaros

Respectfully submitted by
Jamesina Simpson
Secretary
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
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
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
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
USNC Officers 2012-2014

Chair: Steven C. Reising
Past-Chair: Yahya Rahmat-Samii
Secretary and Chair-Elect: David Jackson
Accounts Manager: Gary Brown
International URSI-B Officers 2012-2014

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

International URSI Officers 2012-2014

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)
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- July 19-25, 2015, Vancouver, BC, Canada. Lot Shafai
- June 25-July 3, 2016, San Juan, Puerto Rico. Scott Tyo
- 2018: Steve Best (Boston? Las Vegas?)
- 2019: John Papapolymerou (Atlanta, GA)

Other meetings of interest


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

  You will need a Chinese visa. Takes about a week to get. **Strongly** suggest using visa service.

Other meetings of interest


- ISAP 2013: International Symposium on Antennas and Propagation, December 2-5, 2014, Kaohsiung, Taiwan

Two New URSI Triennial Meetings

- Beginning in 2015, URSI will be holding a scientific conference every year
  - 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
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.
Announcements from USNC

- You are encouraged to attend the First Hans Liebe Lecture special event during lunch on Friday.


- 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.
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.
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.
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?
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?
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.)
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.
Items from International URSI Commission B

• Nomination for the Vice-Chair of the International URSI Commission B.
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.
Technical Activities Report: Christos Christodoulou
Membership Committee: Ed Rothwell/Don Wilton
Old Business?
New Business?
Adjourn
URSI Commission-B
Special Sessions & Stats

January 2014
Boulder, Colorado

Christos Christodoulou
University of New Mexico
<table>
<thead>
<tr>
<th>Session Title</th>
<th>Number of papers</th>
<th>URSI Commission</th>
<th>Chairs or Organizers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complex Media</td>
<td>10</td>
<td>B</td>
<td>Kubilay Sertel Filippo Capolino</td>
</tr>
<tr>
<td>Antenna Arrays</td>
<td>5</td>
<td>B</td>
<td>Yahya Rahmat-Samii Karl Warnick</td>
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<tr>
<td>Antenna Theory, Design and Measurement</td>
<td>10</td>
<td>B</td>
<td>John Volakis Sembiam Rengarajan</td>
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<tr>
<td>Numerical Methods</td>
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<td>B</td>
<td>Branislav Notaros Donald Wilton</td>
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<td>Inverse Scattering</td>
<td>5</td>
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<td>Kamal Sarabandi Danilo Erricolo</td>
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<tr>
<td>Wideband Antennas</td>
<td>5</td>
<td>B</td>
<td>Dejan Filipovic Gregory Huff</td>
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<tr>
<td>Electromagnetic Theory</td>
<td>10</td>
<td>B</td>
<td>David Jackson Piergiorgio Uslenghi</td>
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### All 2014 URSI-B Boulder Sessions

<table>
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<tr>
<th>Session Title</th>
<th>Number of papers</th>
<th>Chairs or Organizers</th>
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<tbody>
<tr>
<td>Advances in Antenna Arrays</td>
<td>9</td>
<td>John Volakis, Atef Elsherbeni</td>
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<tr>
<td>Metamaterials Structures</td>
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<td>Filippo Capolino, Yahya Rahmat-Samii</td>
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<tr>
<td>Antenna Theory, Design and Measurement</td>
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<td>Dejan Filipovic, Christos Christodoulou</td>
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<td>Scattering and Inverse Scattering</td>
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<td>Danilo Erricolo, Piergiorgio Uslenghi</td>
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<tr>
<td>Wideband Antennas</td>
<td>4</td>
<td>Kubilay Sertel, Sembiam Rengarajan</td>
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<tr>
<td>Complex Media &amp; Novel Materials for Antennas</td>
<td>5</td>
<td>James Breakall, Michael Havrilla</td>
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<tr>
<td>Guided Waves and Waveguiding Structures</td>
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<td>Filippo Capolino, Hao Xin,</td>
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<tr>
<td>Microstrip &amp; Printed Devices and Antennas</td>
<td>5</td>
<td>Sembiam Rengarajan, Gregory Huff</td>
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<tr>
<td>Electromagnetic Interaction and Coupling</td>
<td>5</td>
<td>David Jackson, Zoya Popovic</td>
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<td>Terahertz Applications</td>
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<td>Hao Xin, John Volakis</td>
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<td>Antenna Theory and Design</td>
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<td>Everett Farr, Gregory Huff</td>
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<tr>
<td>Numerical Methods</td>
<td>6</td>
<td>Branislav Notaros, Atef Elsherbeni</td>
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## 2013 URSI-B Joint Sessions at Boulder

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<tr>
<th>Session Title</th>
<th>Number of papers</th>
<th>URSI Commission</th>
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<tbody>
<tr>
<td>Sensors for Independent Living</td>
<td>5</td>
<td>B/K</td>
<td>Erdem Topsakal John Volakis</td>
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<tr>
<td>Cognitive Radio and Radar</td>
<td>6</td>
<td>B/C</td>
<td>Amir Zaghloul Christos Christodoulou</td>
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<tr>
<td>Biophotonics</td>
<td>10</td>
<td>B/K</td>
<td>Ilker Capoglu Jamesina Simpson</td>
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<tr>
<td>Developments in Array Technology for Radio Astronomy</td>
<td>11</td>
<td>B/J</td>
<td>Karl Warnick John Volakis</td>
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## 2014 URSI-B Joint Sessions at Boulder

<table>
<thead>
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<tr>
<td>Biophotonics</td>
<td>5</td>
<td>B/K</td>
<td>Jamesina Simpson Ilker Capoglu</td>
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<tr>
<td>Small Satellite Radio Science and Technology</td>
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<td>Cognitive Radio and Signal Processing</td>
<td>5</td>
<td>B/C</td>
<td>Christos Christodoulou Jean-Francois Chamberland</td>
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<td>Spectrum Challenges and Changes</td>
<td>9</td>
<td>B/CE</td>
<td>Lawrence Cohen Thomas Higgins</td>
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<td>Wireless Power Transfer and Energy Harvesting Systems</td>
<td>5</td>
<td>B/CE</td>
<td>Majid Manteghi Danilo Erricolo</td>
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<tr>
<td>Advances in Human Body Modeling for Sensing</td>
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<td>B/K</td>
<td>Yahya Rahmat-Samii Erdem Topsakal</td>
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<tr>
<td>Terahertz Medical Imaging</td>
<td>9</td>
<td>B/K</td>
<td>Kubilay Sertel Zachary Taylor</td>
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## 2014 URSI Boulder Summary

<table>
<thead>
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<th>URSI Commission-B Total</th>
<th>Number of Sessions</th>
<th>Number of Papers</th>
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<tbody>
<tr>
<td></td>
<td>12 (B)</td>
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<tr>
<td></td>
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<td>2 (CE/B joint)</td>
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<td></td>
<td>3 (K/B joint)</td>
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<td><strong>19 (Total)</strong></td>
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### URSI Total (All Commissions)

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<th>Number of Papers</th>
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<tr>
<td><strong>52</strong></td>
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<td><strong>394</strong></td>
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</table>

**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

<table>
<thead>
<tr>
<th>URSI Commission-B Total</th>
<th>Number of Sessions</th>
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<tr>
<td></td>
<td>7 (B)</td>
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<td>2 (K/B joint)</td>
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<td></td>
<td><strong>13 (Total)</strong></td>
<td><strong>87</strong></td>
</tr>
</tbody>
</table>

| 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
<table>
<thead>
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USNC-URSI National Radio Science Meeting

Special Sessions since 2010