

International Union of Radio Science U.S. Commission B

B. Notaros, Chair
K. Warnick, Secretary
S. Sharma, Technical Activities Chair

R. Baktur, Vice-Chair
S. Weiss, Membership Chair

Please reply to: Karl Warnick, warnick@ee.byu.edu

USNC-URSI Commission B Business Meeting Minutes

Portland, Oregon
July 25, 2023

1. Introduction

- Chair Branislav Notaros called the meeting to order
- Welcome to members and guest introductions

2. Chair Report, Branislav Notaros

- Remembrance and moment of silence for Ross Stone
- New leadership: New leadership effective Jan. 1, 2024: Reyhan Baktur as Chair of USNC-URSI Commission B, Karl Warnick as Vice Chair of USNC-URSI Commission B, Chris Anderson as Secretary/Chair-Elect of USNC-URSI
- More volunteers needed for various posts and activities
- 2024 NRSM Boulder 9-19 January, papers due Sep. 15, 2023
- 2023 URSI GASS, 19-26 August in Sapporo Japan. Travel support will be available

3. Membership Committee Report, Steven Weiss (presented by Branislav Notaros)

- Two applicants discussed, Galestan Mackertich-Sengerdy – Early Career, Su Yan – Full Member. Attendees approved the new memberships by vote

4. Technical Activities Report, Satish Sharma

- Report on statistics for the 2023 AP-S/URSI Symposium – 148 Commission B papers submitted, 131 accepted. Paper counts are similar to last year. Satish feels that for various reasons more papers will be submitted in 2024.
- Boulder NRSM paper submissions have declined over the last decade. How can we increase participation in the NRSM?
- Special sessions topics and paper counts discussed

- Thank you to those who help with the paper review process
- Rick Ziolkowski raised the issue as to why abstracts for URSI are not included in the conference proceedings. This has been resolved
- The issue was also raised of posting one page abstracts on IEEE Xplore. Jamesina Simpson informed the group that URSI abstracts could appear on IEEE Xplore beginning with the next Boulder NRSM. Mike Jensen said that the Joint Meetings Committee would be the body that makes the decision for including one page abstracts on Xplore
- Satish Sharma has a concern about the two page paper being a reason for rejecting a full journal paper on the research

5. Additional business

- If you would like to be involved in one of the commission activities, please contact Branislav Notaros, Reyhan Baktur, Karl Warnick
- Branislav Notaros pointed out that this is his last meeting as Chair. Members thanked Branislav for a doing a good job over the last three years

6. Meeting adjourned

Members attending: Raj Mittra, Niru Nahar, Sadasiva Rao, George Uslenghi, John Volakis, Sudhakar Rao, Mike Newkirk, Mohammad Al-Khaldi, Christos Argyropoulos, Hakan Bagci, Reyhan Baktur, Prabhat Baniya, Ioannis Besieris, Jim Breakall, Gary Brown, Robert Burkholder, Sawyer Campbell, Filippo Capolino, Goutam Chattopadhyay, Joseph Costantine, Atef Elsherbeni, Cindy Furse, Ahmad Hoorfar, David Jackson, Ramakrishna Janaswamy, Michael Jensen, Joel Johnson, Joseph Kotulski, Stuart Long, Ronald Marhefka, Eric Mokole, Niru Kamrun Nahar, Sima Noghianian, Ronald Pogorzelski, Maria Pour, Sembiam Rengarajan, Kasra Rouhi, Miguel Saavedra Melo, Kamal Sarabandi, Kubilay Sertel, Balasubramaniam Shanker, Satish Sharma, Jamesina Simpson, Youssef Tawk, Fernando Teixeira, Karl Warnick, Douglas Werner, Donald R. Wilton, Richard Ziolkowski

Guests attending: Junming Diao, Muppala Aditya Varma, Amber Nunnally, Joseph Gedney, David Rohde, Menglou Rao, Gulsah Yildiz, Michael Suche, Jonathan Lundquist, Secil Dogan, Allyanna Rice, Joe Vinci, Ananya Nandikanti, Adrian De Leon, Miguel Saavedra Melo, Eric Whiting, Vicente Rodriguez, Lauren Linkous

Minutes submitted by Karl Warnick, Secretary



Board on International Scientific Organizations

U.S. National Committee for the
International Union of Radio Science

National Academy of Sciences



USNC-URSI B
FIELDS AND WAVES

USNC-URSI Commission-B Business Meeting

Tuesday, July 25, 2023, 5 PM PDT, Portland, Oregon

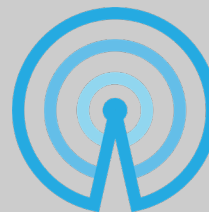
APS/URSI 2023, room A 105, Oregon Convention Center

Branislav (Bane) Notaros

Commission B Chair

Colorado State University

notaros@colostate.edu



- Welcome to members and guests
- (Minutes from Boulder winter meeting already reviewed and approved)
- CHAIR REPORT
- COMMITTEE REPORTS
 - Membership Committee (Steven Weiss)
 - Technical Activities Report (Satish Sharma)
- Old business
- New business
- Adjourn





Please sign the attendance sheet (in-person) or do it in Zoom chat (virtual)

Would you like to introduce your Guest?

Zoom information (sent by email):

<https://byu.zoom.us/j/92918407785?pwd=SDBSMVNkdHRuRGgxU29tdmFidmN1dz09>

Meeting ID: 929 1840 7785

Passcode: 191606

Please email Karl warnick@ee.byu.edu or any logistical questions re the Zoom meeting.



USNC-URSI B
FIELDS AND WAVES



Minutes from our Jan. 12, 2023 Business Meeting, held in conjunction with the NRSM 2023 Boulder,

- provided to you and approved back in January
- you can see them again here:

<https://sites.google.com/view/usnc-ursi-commission-b/>



USNC-URSI B
FIELDS AND WAVES

Remembering Ross Stone

Ross passed away on March 29, 2023.



USNC-URSI Commission B Leadership



Branislav Notaros

Chair

ECE Dept.

Colorado State University

E-mail: notaros@colostate.edu



Satish Sharma

Technical Activities Chair

ECE Dept.

San Diego State University

E-mail: ssharma@sdsu.edu



Reyhan Baktur

Vice Chair

ECE Dept.

Utah State University

E-mail: reyhan.baktur@usu.edu



Karl Warnick

Secretary

ECE Dept.

Brigham Young University

E-mail: warnick@ee.byu.edu



Steven Weiss

Membership Committee Chair

Army Research Lab

E-mail: steven.j.weiss14.civ@mail.mil

<https://www.nationalacademies.org/our-work/usnc-ursi-commission-b-fields-and-waves>

USNC-URSI Commission B Officers for 2024-2026

- Chair and Vice Chair terms will expire Dec. 31, 2023. On Jan. 1, 2024, current Vice Chair, Reyhan Baktur, will (automatically) assume position of Chair.
- We conducted online voting for new Vice Chair by google poll from March 20 to April 30, 2023.
- Vice Chair Elect is Karl Warnick, with start of service as Vice Chair Jan. 1, 2024. Karl will become Chair on Jan. 1, 2027.
- We need more volunteers for various posts and activities within Commission B.



Board on International Scientific Organizations

U.S. National Committee for the
International Union of Radio Science

National Academy of Sciences

USNC-URSI Leadership (2022-2023)

4 Officers + 2 National Academies Staff



Michael Newkirk
USNC Chair

The Johns Hopkins University
Applied Physics Laboratory
Michael.Newkirk@jhuapl.edu



Jamesina Simpson
USNC Secretary and Chair-Elect

Dept. of Electrical and Computer Engineering
University of Utah
Jamesina.Simpson@utah.edu



Sembiam Rengarajan
USNC-URSI
Immediate Past Chair



Gary Brown
USNC-URSI
Accounts Manager

Vacant
The National Academies
BISO Director



Ana Ferreras
The National Academies
Senior Program Officer

Next Chair-Elect of USNC-URSI (for 2024 - 2026 term) is Chris Anderson, from US Naval Academy, Commission A Chair

Membership in USNC-URSI Commission B

- Nominations for (**full, associate, or early career**) membership in Commission B should be submitted online.
- Applications are due by **December 1** of each year to be considered during the January meeting (unless the January meeting is not being held as was the case in 2020) or by **May 1** of each year to be considered during the summer AP-S/URSI joint symposium.
- Nomination form at:
<https://www.nationalacademies.org/our-work/usnc-ursi-commission-b-fields-and-waves>

Individual Membership in URSI (International)

- By application through www.ursi.org
 - Requirements similar to USNC membership

2024 NRSM Boulder

- Dates: 9-13 January 2024 (Tuesday – Saturday)
- Call for Papers on NRSM site:
<https://www.nrsmboulder.org/>
 - Full list of topics and special sessions also listed under the “Topics” tab
 - Special Session being organized to memorialize Ross Stone
- Special Events are planned to celebrate 50 years of NRSMs in Boulder!
 - Yahya Ramat-Samii is Chair of the Steering Committee for this event; More info to follow
- Submission Deadline: Wednesday, 15 Sept. 2023

2023 GASS

- Dates: 19 – 26 September in Sapporo, Japan
- Conference site: <https://www.ursi-gass2023.jp/>
 - Submissions now closed
 - Program is available
- Limited travel support will be available for students / Early Career and USNC-URSI Members
 - More info to follow – watch for an email coming soon

Any Updates (not covered so far)

- USNC-URSI Business?
- URSI (International) Commission B Business?

Commission-B
Business Meeting

Committee Report



Board on International Scientific Organizations

U.S. National Committee for the
International Union of Radio Science

National Academy of Sciences

Membership Committee: Steven Weiss

Commission-B
Business Meeting

Committee Report



Board on International Scientific Organizations

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Technical Activities Report: Satish Sharma



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

USNC/URSI Commission B Membership Committee

Steven Weiss (chair) – The Johns Hopkins University

Commission B
July 2023

Membership Guidelines

- Required qualifications:
 - technical competence
 - evidence: nominee's publications
 - interest in the activities of URSI
 - evidence: nominee's participation in URSI symposia
- Minimum publication/presentation numbers:
 - Early Career Member
 - Co-author of one URSI presentation in Commission B and attendance at one USNC-URSI symposium
 - Associate Member
 - minimum of 2-3 publications
 - two URSI presentations (at least one in Commission B)
 - Full Member
 - U.S. citizen or permanent resident
 - minimum of 5-6 publications
 - three URSI presentations (at least two in Commission B)

Commission B Nominees

■ Early Career Membership

■ Galestan Mackertich Sengerdy

- The Pennsylvania State University
- Phone : 814 865 1995
- E-mail : gum102@psu.edu
- sponsor: Douglas Werner
- Co-author of one URSI presentation in Commission B and attendance at one USNC-URSI symposium. (yes)
- PhD in Electrical Engineering (in progress) from The Pennsylvania State University. MS 2018.

■ Research work in Applied Computational Electromagnetics

- o Antenna System and Design
- o Phased Array, Reflectarray, Transmitarray Systems
- o Dielectric Lens Antennas
 - Metamaterials and Metasurfaces
- o Metamaterial-inspired antennas

Commission B Nominees

■ For Full Membership

■ Su Yan

- Howard University
- Phone : 202 806 2215
- E-mail : su.yn@howard.edu
- sponsor: Donald Wilton (University of Houston)
- U.S. citizen or permanent resident (yes)
- minimum of 5-6 publications (yes)
- three URSI presentations (at least two in Commission B) (yes)
- Ph.D., Electrical Engineering 2016 The University of Illinois at Champaign-Urbana

- Dr. Su Yan has research experiences in electromagnetic modeling and simulation, including electromagnetic forward and inverse scattering problems, finite element methods, integral-equation-based methods, domain decomposition methods, fast algorithms, and preconditioning techniques. His current research interests include numerical methods in multiscale electromagnetic and multiphysics problems, high-performance computing, and artificial intelligence for scientific computing.

Membership Recommendations

- Election to Early Career Member:
 - Galestan Mackertich Sengerdy
- Election to Associate Member:
 - None
- Election to Full Member:
 - Su Yan

IEEE International Symposium on Antennas & Propagation & **USNC-URSI** Radio Science Meeting

JULY 23-28, 2023 • Portland



URSI Commission-B Special Sessions & Stats

**25 July 2023
Portland**

**Satish K. Sharma
San Diego State University**



2023 IEEE International Symposium on Antennas and Propagation and North American Radio Science Meeting

13-28 July 2023 • Portland

Papers submitted, accepted, rejected, and withdrawn

(Breakdown: AP, URSI, URSI from US authors, URSI from non-US authors)

Submitted	Accepted	Rejected	Withdrawn
Total Submitted: 1464	Total Accepted: 1259	Total Rejected: 205	Total Withdrawn: 171
- AP Submitted: 1161	- AP Accepted: 998	- AP Rejected: 163	- AP Withdrawn: 134
- URSI Submitted: 303	- URSI Accepted: 261	- URSI Rejected: 42	- URSI Withdrawn: 37
- URSI from US: 143	- URSI from US: 136	- URSI From US: 7	- URSI from US: 7
- URSI from non-US: 160	- URSI from non-US: 125	- URSI From non-US: 35	- URSI from non-US: 30

Sessions		
AP-S	139	Includes SS
URSI	54	Includes SS
URSI US	--	Includes SS
URSI Non-US	--	Includes SS

SS: Special Session

2023 IEEE International Symposium on Antennas and Propagation and North American Radio Science Meeting, Portland

URSI	Submitted Papers	Accepted Papers	Withdrawn Papers	Sessions
A	16	16	0	5
B	148	131	17	25
C	39	24	15	6
D	17	15	2	4
E	9	6	3	2
F	16	13	3	6
G	-	-	-	-
H	-	-	-	-
J	-	-	-	-
K	15	15	0	3
URSI Special	43	41	2	16
Total	303	261	42	37

2022 IEEE International Symposium on Antennas and Propagation and North American Radio Science Meeting

10-15 July 2022 • Denver

Papers submitted, accepted, rejected, and withdrawn (Breakdown: AP, URSI, URSI from US authors, URSI from non-US authors)

Submitted	Accepted	Rejected	Withdrawn
Total Submitted: 1473	Total Accepted: 1370	Total Rejected: 103	Total Withdrawn: 87
- AP Submitted: 1160	- AP Accepted: 1082	- AP Rejected: 78	- AP Withdrawn: 65
- URSI Submitted: 313	- URSI Accepted: 288	- URSI Rejected: 25	- URSI Withdrawn: 22
- URSI from US: 169	- URSI from US: 164	- URSI From US: 05	- URSI from US: 04
- URSI from non-US: 144	- URSI from non-US: 124	- URSI From non-US: 20	- URSI from non-US: 18

	Sessions	
AP-S	140	Includes SS
URSI	59	Includes SS
URSI US	52	Includes SS
URSI Non-US	45	Includes SS

SS: Special Session

2022 IEEE International Symposium on Antennas and Propagation and North American Radio Science Meeting, **Denver**

URSI	Submitted Papers	Accepted Papers	Withdrawn Papers	Sessions
A	15	13	00	04
B	150	139	10	26
C	29	21	01	04
D	--	--	--	--
E	10	09	01	02
F	25	24	01	06
G	--	--	--	--
H	--	--	--	--
J	--	--	--	--
K	31	30	01	07
URSI Special	53	52	01	22
Total	313	288	22	71

2023 version of this symposium we have

B	148	131	17	25
URSI	Submitted Papers	Accepted Papers	Withdrawn Papers	Sessions

2021 IEEE International Symposium on Antennas and Propagation and North American Radio Science Meeting

4-10 December 2021 • Singapore

Papers submitted, accepted, rejected, and withdrawn

(Breakdown: AP, URSI, URSI from US authors, URSI from non-US authors)

Submitted	Accepted	Rejected	Withdrawn
Total Submitted: 1773	Total Accepted: 1502	Total Rejected: 271	Total Withdrawn: 46
- AP Submitted: 1239	- AP Accepted: 1072	- AP Rejected: 167	- AP Withdrawn: 36
- URSI Submitted: 267	- URSI Accepted: 215	- URSI Rejected: 52	- URSI Withdrawn: 5
- URSI from US: 87	- URSI from US: 72	- URSI From US: 15	- URSI from US: 1
- URSI from non-US: 180	- URSI from non-US: 143	- URSI From non-US: 37	- URSI from non-US: 4

	Sessions	
AP-S	133	Includes SS
URSI	52	Includes SS
URSI US	26	Includes SS
URSI Non-US	39	Includes SS

SS: Special Session

2021 IEEE International Symposium on Antennas and Propagation and North American Radio Science Meeting, **Singapore**

URSI	Submitted Papers	Accepted Papers	Withdrawn Papers	Sessions
A	14	10	0	05
B	132	109	03	29
C	22	16	02	05
D	--	--	--	--
E	07	07	0	03
F	22	17	0	07
G	--	--	--	--
H	--	--	--	--
J	--	--	--	--
K	19	16	0	03
URSI Special	49	39	0	20
Total				

2023 version of this symposium we have

B	148	131	17	25
URSI	Submitted Papers	Accepted Papers	Withdrawn Papers	Sessions

2020 IEEE International Symposium on Antennas and Propagation and North American Radio Science Meeting

5-10 July 2020 • Montréal, Québec, Canada

Papers submitted, accepted, rejected, and withdrawn

(Breakdown: AP, URSI, URSI from US authors, URSI from non-US authors)

Submitted	Accepted	Rejected	Withdrawn
Total Submitted: 1798	Total Accepted: 1514	Total Rejected: 100	Total Withdrawn: 184
- AP Submitted: 1349	- AP Accepted: 1168	- AP Rejected: 86	- AP Withdrawn: 95
- URSI Submitted: 449	- URSI Accepted: 346	- URSI Rejected: 14	- URSI Withdrawn: 89
- URSI from US: 213	- URSI from US: 159	- URSI From US: 3	- URSI from US: 51
- URSI from non-US: 236	- URSI from non-US: 187	- URSI From non-US: 11	- URSI from non-US: 38

2020 IEEE International Symposium on Antennas and Propagation and North American Radio Science Meeting, **Montreal**

URSI	Submitted Papers	Accepted Papers	Withdrawn Papers	Sessions
A	21	16	5	2
B	206	152	47	27
C	33	29	4	4
D	47	36	8	6
E	2	1	0	0
F	39	27	9	6
G	2	2	0	0
H	3	3	0	1
J	20	19	1	4
K	19	16	3	2
URSI Special	57	45	12	2
Total	449	346	89	54

2023 version of this symposium we have

B	148	131	17	25
URSI	Submitted Papers	Accepted Papers	Withdrawn Papers	Sessions

2019 IEEE International Symposium on Antennas and Propagation/USNC-URSI National Radio Science meeting, July 7–12, 2019, **Atlanta**, Georgia

Papers submitted, accepted, rejected, and withdrawn
(Breakdown: AP, URSI, URSI from US authors, URSI from non-US authors)

Submitted	Accepted	Rejected	Withdrawn
Total Submitted: 1590	Total Accepted: 1516	Total Rejected: 74	Total Withdrawn: 47
- AP Submitted: 1245	- AP Accepted: 1179	- AP Rejected: 66	- AP Withdrawn: 32
- URSI Submitted: 345	- URSI Accepted: 337	- URSI Rejected: 8	- URSI Withdrawn: 15
- URSI from US: 203	- URSI from US: 202	- URSI From US: 1	- URSI from US: 10
- URSI from non-US: 142	- URSI from non-US: 135	- URSI From non-US: 7	- URSI from non-US: 5

2019 IEEE AP-S International Symposium & USNC-URSI Meeting, **Atlanta**, Georgia

URSI	Submitted Papers	Accepted Papers	Withdrawn Papers	Sessions
A	36	34	2	5
B	183	173	6	24
C	18	14	2	2
D	-	-	-	-
E	6	6	1	1
F	34	32	2	3
G	-	-	-	-
J	-	-	-	-
K	12	12	0	3
URSI Special	56	56	2	0
Total	345	327	15	38

2023 version of this symposium we have

B	148	131	17	25
URSI	Submitted Papers	Accepted Papers	Withdrawn Papers	Sessions

NRSM 2023 Statistics

Category	2019	2021	2022	2023
Total Submissions	342	236	309	286
Total Accepted	341	229	304	282
Total Withdrawn	0	10	8	4
Total Presented	341	219	296	278
Number of Sessions	46	40	47	37
Number of Special Sessions	?	20	21	20
Registrations - Total	365	361	384	328*
- ECMs/Students/Retirees	175	96	203	151*
- Member/Non-Member	190	265	181	177*
- In-person	365	-	192	254*
- Online	-	361	192	74*

*preliminary, as of 10 January 2023

National Radio Science Meeting Conference Statistics

Year	# Papers	# Sessions	# Travel Grants
2011	358	49	113
2012	369	47	104
2013	364	47	100
2014	399	54	115
2015	NARSM	NARSM	NARSM
2016	375	49	122
2017	425	56	137
2018	414	59	128
2019	341	46	109
2020	NARSM	NARSM	NARSM
2021	219	40	22
2022	296	47	--
2023	278	37	59

- In 2023, one page abstracts: 219 and two page summaries: 63
- In 2022, one page abstracts: 220 and two page summaries: 75
- In 2021, one page abstracts: 159 and two page summaries: 60
- In 2019, one page abstracts: 283 and two page summaries: 58
- In 2018, one page abstracts: 356 and two page summaries: 61

Commission B Special Sessions, 2024 USNC-URSI NRSN, Boulder, Colorado
6 special sessions May 7, 2023

1. Advances in Wireless Power Transfer and Harvesting for Biomedical and Communication Applications

(Joint Commission B and K Session): Sima Noghanian, CommScope (sima_noghanian@ieee.org) and Yahia Rahmat-Samii, Univ. of California, Los Angeles (rahmat@ee.ucla.edu)

2. Multifunctional Antennas and Arrays for Satellite and Wireless Communications

Satish K. Sharma, San Diego State Univ. (ssharma@sdsu.edu) and Jia-Chi S. Chieh, NIWC-Pacific (jiachi.s.chieh.civ@us.navy.mil)

3. Antennas and Systems for Specialized Platforms and Environments

Reyhan Baktur, Utah State University (reyhan.baktur@usu.edu) and David R. Jackson, University of Houston (djackson@uh.edu)

4. Complex EM and Meta Structures

Filippo Capolino, University of California, Irvine (f.capolino@uci.edu) and Juan Sebastian Gomez Diaz, University of California, Davis (jsgomez@ucdavis.edu)

5. Antennas for Planetary Exploration

Avinash Sharma (Avinash.Sharma@jhuapl.edu) Johns Hopkins University Applied Physics Laboratory, and Matthew Bray, Johns Hopkins University Applied Physics Laboratory (Matthew.Bray@jhuapl.edu)

6. Advanced Modeling Techniques and Algorithms in Computational Electromagnetics

Ata Zadehgoel, University of Idaho (azadehgoel@uidaho.edu) and Johannes Russer, Technical University of Munich (jrusser@tum.de)

Commission B Special Sessions, 2023 USNC-URSI NRSN, Boulder, Colorado

7 special sessions (50 papers), B regular sessions: 20 papers, (total URSI: **37** sessions, **278** papers)

1. Low-Profile Millimeter-Wave/Terahertz Antennas for Mobile and Space Applications (10 papers)

Satish K. Sharma, San Diego State University (ssharma@sdsu.edu) and Goutam Chattopadhyay, JPL-NASA (goutam.chattopadhyay@jpl.nasa.gov)

2. Wearable antennas for WiFi, IoT, and 5G applications (Joint Commission B and K Session) (10 papers)

Sima Noghanian, CommScope, (sima_noghanian@ieee.org) and Yahya Rahmat-Samii, University of California, Los Angeles (rahmat@ee.ucla.edu)

3. Antennas and Systems for Specialized Platforms and Environments (10 papers)

Reyhan Baktur (reyhan.baktur@usu.edu), Utah State University and David R. Jackson, University of Houston (djackson@uh.edu)

4. Multiscale and Stochastic Modeling in Computational Electromagnetics (5 papers)

Ata Zadehgo, University of Idaho (azadehgo@uidaho.edu) and Johannes Russer, Technical University of Munich (jrusser@tum.de)

5. Novel Electrically Small Antennas and Matching Networks (5 papers)

Ting-Yen Shih, University of Idaho (tshih@uidaho.edu) and Kai Ren, Wentworth Institute of Technology (renk@wit.edu)

6. Complex EM and Meta Structures (5 papers)

Filippo Capolino, University of California, Irvine (f.capolino@uci.edu) and Juan Sebastian Gomez Diaz, University of California, Davis (jsgomez@ucdavis.edu)

7. Antennas for Planetary Exploration (5 papers)

Avinash Sharma (Avinash.Sharma@jhuapl.edu) Johns Hopkins University Applied Physics Laboratory, and Matthew Bray, Johns Hopkins University Applied Physics Laboratory (Matthew.Bray@jhuapl.edu)

Commission B Special Sessions, 2022 USNC-URSI NRSM, Boulder, Colorado

7 special sessions (38 papers), B regular sessions: 43 papers, (total URSI: 47 sessions, 296 papers)

1. Low-Profile Millimeter-Wave/Terahertz Antennas for Mobile and Space Applications (TITLE CHANGE)

Goutam Chattopadhyay, JPL-NASA and Satish K. Sharma, San Diego State Univ. (5 papers)

2. High Power Electromagnetics (Joint Commission B and E Session):

D. V. Giri, Pro-Tech and R.L. Gardner (No session)

3. Antennas and Systems for Specialized Platforms: UAVs, UUVS, and SmallSats

Reyhan Baktur, Utah State University and David R. Jackson, University of Houston (9 papers: Combined with #4)

Combined Session title: Antennas and Systems for Specialized Platforms and Extreme/Harsh Environments

4. Antennas and Sensors for Harsh Environment

Sima Noghanian, Phoenix Analysis and Design Technologies; and Sayan Roy, South Dakota School of Mines

5. Multiscale and Stochastic Modeling in Computational Electromagnetics (5 papers)

Ata Zadehgo, University of Idaho and Johannes Russer, Technical University of Munich

6. 5G and Millimeter Wave Antennas and Applications (5 papers)

Adrew Chrysler, Idaho State University, and Ting-Yen Shih, University of Idaho

7. Complex EM and Meta Structures (8 papers)

Filippo Capolino, University of California, Irvine and Ashwin Iyer, University of Alberta

8. Novel Electrically Small Antennas and Matching Networks (NEW) (6 papers)

Ashwin Iyer, University of Alberta and Ting-Yen Shih, University of Idaho

Commission B Special Sessions, 2021 USNC-URSI NRSN, Boulder, Colorado

7 B special sessions: 44 papers, B regular sessions: 41 papers (total URSI: 40 sessions, 219 papers)

1. Antennas and Sensors for Harsh Environment (4 papers)

Sima Noghanian, Wafer LLC and Sayan Roy, South Dakota School of Mines and Technology (sima_noghanian@ieee.org and Sayan.Roy@sdsmt.edu)

2. Low-Profile Antennas from Gigahertz to Terahertz (5 papers)

Goutam Chattopadhyay, JPL-NASA and Satish K. Sharma, San Diego State Univ. (goutam.chattopadhyay@jpl.nasa.gov and ssharma@sdsu.edu)

3. High Power Electromagnetics (Joint Commission B and E Session) (9 papers)

D. V. Giri, Pro-Tech and R.L. Gardner (giri@dvghi.com and blitz32schreiber@gmail.com)

4. Wireless Communications for Specialized Platforms and Environments (Antennas for CubeSats and UAVs) (5 papers)

Reyhan Baktur, Utah State University and David R. Jackson, University of Houston (reyhan.baktur@usu.edu and djackson@uh.edu)

5. Multiscale and Stochastic Modeling in Computational Electromagnetics (6 papers)

Ata Zadehgoi, University of Idaho and Johannes Russer, Technical University of Munich (azadehgoi@uidaho.edu and jrusser@tum.de)

6. 5G and Millimeter Wave Antennas and Applications (5 papers)

Adrew Chrysler, Idaho State University, and Ting-Yen Shih, University of Idaho (chryandr@isu.edu and tshih@uidaho.edu)

7. Complex EM and Meta Structures (10 papers)

Filippo Capolino, University of California, Irvine and Ashwin Iyer, University of Alberta (f.capolino@uci.edu and iyer@ece.ualberta.ca)

Special Sessions for National Radio Science Meeting 2024

- Please contact Satish K. Sharma within two weeks if you are still interested in organizing special session for the NRSM 2024.
- Thank you Technical Activities Committee (TAC) Reviewers for your service to Commission B papers reviewer activity
- Thank you USNC-URSI Commission B Officers for your help in reviewer and session building activities
- Hope to see you all at NRSM 2024 in Boulder during January 9-13, 2024
- Email: ssharma@sdsu.edu

List of Special Sessions 2023

FR-SP.2A	EM Waves in Random Media: A Tribute to Akira Ishimaru
TH-SP.2P	Frontier Biomedical Theory, Experiments, Instruments and Applications
WE-SP.3P	Concept and Design Development of Innovative Reconfigurable Intelligent Surfaces (RIS)
MO-SP.1P	Reconfigurable Intelligent Surfaces (RIS) and Systems
FR-SP.1A	Enabling Antenna Technologies for Emerging Consumer Electronic Applications
WE-SP.2A	Characterization and Deployment of Passive Sensor Arrays for Astronomy and Other Applications
TU-SP.2P	Broadband Phased Arrays for the Next Generation of Communication Systems
WE-SP.2P	Millimeter-Wave and THz-Wave Antennas with Beam-Scanning and Multi-Beam Functions
MO-SP.1A	Honoring 50+ Years of Continuous Contributions and Impact of Professor Yahya Rahmat-Samii
on the year of his 75th Birthday	
TH-SP.1P	Quantum Technology Related to Electromagnetics II
WE-SP.1P	Advanced Materials and Manufacturing for Future Antenna Applications
TU-SP.3A	Electromagnetic Nondestructive Evaluation
WE-SP.1A	The Antennas and Propagation Society in 2033 : A Decade of Opportunities for Progress in
Diversity, Equity and Inclusion	
TH-SP.2A	5G and WLAN Antenna Design and Integration Technology for Mobile, Laptop Systems
TU-SP.2A	Disruptive Fusion Technologies of Smart Antenna and Reconfigurable Intelligent Surface (RIS)
TU-SP.1A	Advances in Microwave, mm and THz Imaging Systems and Technologies for Medical
Applications	
TU-SP.1P	Advances in Microwave, mm and THz Imaging Systems and Technologies for Medical
Applications II	
TH-SP.1A	Quantum Technology Related to Electromagnetics
MO-SP.2A	RIS/Metasurface Components and System Analysis for 5G-Advanced and 6G