



International Union of Radio Science U.S. Commission B

R. Baktur, Chair
S. Sharma, Secretary
T. Karacolak, Technical Activities Chair

K. Warnick, Vice-Chair
S. Weiss, Membership Chair

Please reply to: Satish K. Sharma, ssharma@sdsu.edu

USNC-URSI Commission B Business Meeting Minutes: The USNC-URSI Commission B Business Meeting, July 13, 2026, Detroit, MI, USA

July 13, 2026, at 5:00 PM (EST)

1. Introduction

- Chair Reyhan Baktur called the meeting to order.
- Welcomed members and guests to sign the attendance sheet.
- Asked members to introduce their guests or guests to introduce themselves.
- Guests were introduced by Commission members.
- The chair welcomed the presence of Prof. P. Van Daele, Secretary-General, URSI. Prof. Daele briefly described URSI and its memberships and invited everyone to future conferences.

2. Chair Report, Reyhan Baktur

- Meeting minutes from the last meeting on January 8, 2026, were posted (https://usncursi.org/commission_b.php under the Minutes section) and were approved unanimously.
- Chair mentioned USNC-URSI Commission B Officers from 2024 to 2026.
- Chair introduced and congratulated the new newsletter EIC, Payam Nayeri (E-mail: pnayeri@calpoly.edu). She also thanked the outgoing inaugural newsletter EIC, Lauren Linkous, for her excellent service. Commission B's page has the past newsletter: https://usncursi.org/commission_b.php
- Chair congratulated Commission B member, Prof. John Volakis, for his prestigious 2026 IEEE Electromagnetics Award.

- Chair discussed the benefits of becoming a member of the USNC-URSI Commission B at no cost. Interested individuals should apply at: <https://usncursi.org/membership.php>. She mentioned bringing students/guests to URSI business meetings, introducing them to URSI, and making them members.
- Chair mentioned the upcoming USNC-URSI Commission B election for the Vice-Chair for the next triennium (Jan 2027 – Dec 2029). We will have an E-election. Only full members of USNC-URSI Commission B can vote.
- Chair mentioned filling the commission officer positions, such as the secretary, technical activities chair, and membership committee chair. She thanked members for responding to an earlier pre-call about the officer positions, such as the secretary, technical activities chair, and membership committee chair. She mentioned that the TAC Chair is unable to continue because of personal reasons.
- Chair mentioned the USNC-URSI Website: www.usncursi.org. Any suggestions to improve the commission webpage are welcome. Students, early career members, and associate members are welcome to volunteer to design/improve the webpage.
- Chair mentioned the current/upcoming conferences: (i) URSI GASS in Krakow, Poland (August 2026) and then in Singapore in 2029, and (ii) NRSM 2027 (5-8 January 2027), NRSM 2028 (4-7 January 2028), and NRSM 2029 (9-12 January 2029), all in Boulder, CO.
- Chair sought ideas for Workshops and Short Courses for NRSM 2027 planning. Those interested in proposing these, please provide a list of potential titles and organizers. Up to 2 organizers per workshop / short course get ½ of their registration costs covered for organizing.
- Chair asked for ideas for the 2027 NRSM Plenary Session.
- Chair discussed the NRSM 2027 Special Session plans. Although the deadline for this has passed, she mentioned that we can still accommodate some Special Sessions. Those interested should contact the Chair and the TAC Chair immediately.
- Chair mentioned the NRSM 2027 would need reviewing and session chairing help from the interested commission members. She also asked members: Would you like to volunteer to help chair sessions as needed during the 2027 NRSM?
- Chair discussed the USNC-URSI E-Lectures activity. She asked about ideas for future E-Lecture speakers (names and emails). The last (5th) E-Lecture was on 27 Feb 2026: “An Overview of Metamaterials from a Transmission-Line Perspective,” by Prof. George V. Eleftheriades. Videos of previous E-Lectures are available on our webpage (https://usncursi.org/e_lectures.php) and YouTube channel (<https://www.youtube.com/@USNC-URSI>).

3. Technical Activities Report, by Karl Warnick on behalf of TAC, Chair

A report on statistics for the 2026 NRSM and 2026 IEEE International Symposium on Antennas & Propagation and USNC-URSI Radio Science Meeting was presented and compared with previous versions of this conference. One discussion item was the decline in URSI submissions, which may be due to the IEEE AP-S Symposium also accepting one-page abstracts. One suggestion was about engaging more industry sessions from the Commission.

4. Membership Committee Report, Steven Weiss

The membership committee chair presented the requirements for each membership level. Two membership applications (*Full Member*: Ata Zadehgoel and *Early Career Member*: Steven B. Perry) were brought for discussion. Both applications were approved unanimously by the full members in attendance.

5. Additional business

None

6. Meeting adjourned at 5.40 PM

Members attending (*Not in alphabetic order*): Lauren Linkous, Amber Nunnally, Jamesina Simpson, Andrew F. Peterson, Cindy Furse, John Young, Kubilay Sertel, Satish Sharma, Jonathan Chisum, Sawyer Campbell, Cody Scarborough, Richard W. Ziolkowski, Yang Li, Karl Warnick, David R. Jackson, Michael Jensen, Stuart Long, Asimina Kiourti, Donald Wilton, Constantinos L. Zekios, Niru K. Nahar, Atef Elsherbeni, Ifana Mahbub, Danilo Erricolo, Jeffrey Nanzer, Anthony Grbic, Joel Johnson, Ronald Marhefka, Steven Weiss, Ahmed Hassan, John Volakis, Goutam Chattopadhyay, Jianming Jin, Weng Cho Chew, Sima Noghianian, Su Yan, Robert Nevels, Branislav Notaros, Susan Hagness, Zhizhang David Chen, Gary Brown, Piergiorgio Uslenghi, Yahya Rahmat-Samii.

Guest attending (*Not in alphabetic order*): Peter Van Daele (URSI, General Secretary), Sarah Johnson, Ata Zadehgoel, Gabriele Gradoni, Samuel Silberman, Abu Hena Murshed, Ahnaf Kamal, Suchitra Tiwari, Saibun Tjuatja, Alptug Ayyildiz, Hayden Earl, George Shaker, Sayan Roy, Niharika Kaja,

Minutes submitted by Satish Sharma, Secretary

Welcome to the

**2026 IEEE AP-S/URSI Commission B
Business Meeting**

SCAN ME



Welcome Guests!

- If you brought a guest with you, please introduce them.
- OR: If you are a guest not attending with a member, please introduce yourself!

SCAN ME



Approval of 2026 NRSM Meeting Minutes

<https://usncursi.org/>

SCAN ME



USNC-URSI Commission B 2024-2026 Leadership



Reyhan Baktur
Chair

ECE Dept.
Utah State University
E-mail: reyhan.baktur@usu.edu



Karl Warnick
Vice Chair

ECE Dept.
Brigham Young University
E-mail: warnick@ee.byu.edu



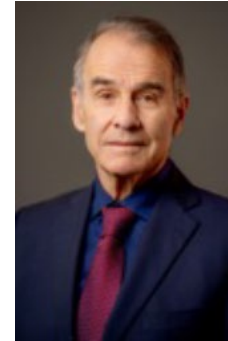
Tutku Karacolak
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Satish Sharma
Secretary

ECE Dept.
San Diego State University
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Steven Weiss
Membership Committee Chair

The Johns Hopkins University
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We have something Unique



Lauren Linkous
Inaugural EIC
ECE Department
VCU College of Engineering
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Payam Nayeri
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U.S. National Committee for the
International Union of Radio Science



USNC-URSI B
FIELDS AND WAVES



Vol. 04**6.2026****COMMISSION B**
NEWSLETTER

Dear Colleagues and Friends,
Welcome back to the USNC-URSI Commission B Newsletter! In this issue, we have, SPC winners from the previous meeting in Boulder, and other events held during the NRSM. The previous meeting minutes can be [found here](#). The NRSM plenary and other Videos can be [found here](#). USNC-URSI Commission B will have a commission business meeting in Detroit; stay posted for more information!

What's New at a Glance:
The 2026 IEEE AP-S and USNC-URSI Radio Science Meeting will be held in Detroit, Michigan, USA from 12-17 July 2026. The program has been posted and can be [found here](#). We hope to see you at the conference.**2027 National Radio Science Meeting**
5 - 7 January 2027 • Boulder Colorado


The 53rd Annual National Radio Science Meeting (NRSM) will be held 5 - 7 January 2027 in Boulder, CO at **The Limelight Hotel**. Submit your abstract/paper by 11 September 2026 (Paper Submission will open soon). The **Call for Papers** is now available. USNC-URSI Student Support award. The NRSM will continue to have a plenary session, an invited Hans Liebe Lecture, commission meetings, workshops / short courses, exhibits, a Women in Radio Science (WIRS) reception, as well as a student paper competition, and a student mentoring luncheon. Also, there is still time to propose special sessions or short courses/workshops at NRSM. Please contact us as needed.

A special thank you to our former editor, Dr. Lauren Linkous, for her great service. As the inaugural Editor-in-Chief, Dr. L. laid the foundation for this newsletter by creating the structure, design, and vision that continue to guide us today. We are deeply grateful for her creativity, dedication, and lasting impact. Dr. L. would also like to share the credit with her two purry friends for their companionship, support, and inspiration throughout her creative work, including her thesis project. Thank you, Dr. L.—and your wonderful feline co-editors—for leaving us such an incredible legacy!

**Congratulations to the winners of the 2026 NRSM Student Paper Competition!**

1. Mason Matrazzo, Auburn University
2. Joseph Gedney, The Ohio State University
3. Brenna Royersmith, University of Colorado Boulder

The **Hans Liebe Lectureship Series** in January 2026 features **Dr. Juan Pardo**. The title of his talk is: It all Started with Hans Liebe's MPM: "30 years Measuring the Atmospheric MM/SMM Spectrum from High and Dry Astronomical". The recording can be [found here](#).

Have questions? Reach out to our officers:
Reyhan Baktur (Chair, reyhan.baktur@usu.edu),
Karl Warnick (Vice-Chair, warnick@ee.byu.edu),
Satish Sharma (Secretary, ssharma@sdsu.edu),
Tutku Karacolak (Technical Activities Chair, tutku.karacolak@wsu.edu),
Steven Weiss (Member Nominations Chair, sweiss7@jh.edu)
Questions about the newsletter?
Payam Nayeri (Editor, pnayeri@calpoly.edu)

https://usncursi.org/commission_b.php

Thank you for your service.

Congratulations!

Apply for Membership in Commission B

- No cost, but requires a vote by commission members
- Benefits:
 - Discounted registration at the NRSM
 - Eligibility to serve in USNC-URSI and later URSI leadership positions
 - Eligibility to vote on topics relating to the commissions
 - Receive notifications of USNC-URSI activities and opportunities
- Regarding eligibility: Students can join as Early Career Members; Peer-reviewed classified documents can count as relevant publications.
- Apply at: <https://usncursi.org/membership.php>

Criteria for New Member Applications

- Evidence of **technical competence**: Publications and accomplishments
- Evidence of **interest**: Participation in USNC-URSI activities, meetings, and conferences
- *Allowances will be made for fewer numbers of articles with special significance, for scientific and research accomplishments of unusual merit, and for practitioners with classified peer-reviewed documents not available in the open literature.*
- Only Full members are voting members and may serve as officers; other member levels may serve on Committees, etc.

Member level	Citizen/residence	Journal	USNC-URSI/URSI presentations	USNC-URSI/URSI "in-commission"	Other
Full	US citizen or permanent resident	5-6	3	2	Scientific maturity & leadership
Associate	Reside in US (to remain)	2-3	2	1	
Early Career (student)	Enrolled at US university; ≤ 10 years after last degree	0	0	1	Attendance at 1 symposium
Early Career (non-student)	Employee at US univ., gov'n't, company AND reside in US; ≤ 10 years after last degree	0	0	1	Attendance at 1 symposium

Commission B Elections

- We are filling the position of Vice Chair in Commission B for the next triennium (Jan 2027 – Dec 2029).
- We will have an E-election. Only full members can vote.
- Questions?

Commission B Open Positions

- Thank you for responding to an earlier pre-call. :)
- Secretary
- Technical Committee Chair
- We could always use extra help.

Commission B's Webpage

- <https://usncursi.org/>
- Currently we have Commission B Newsletters, Minutes, and officers on the website.
- We could improve.
- Students, early career members, and associate members are welcome to volunteer to design/improve the webpage.

Some Upcoming Conferences of Interest

- **URSI GASS in Krakow, Poland**
15 – 22 August 2026
(2029 will be in Singapore)
- **Potential dates for the next USNC-URSI NRSM's:**
5 – 8 January 2027
4 – 7 January 2028
9 – 12 January 2029

2027 NRSM: Workshops & Short Course Ideas

- We need ideas for Workshops and Short Courses. Please provide a list of potential titles and organizers. Up to 2 organizers per workshop / short course get ½ of their registration costs covered for organizing.

Topic / Title	Organizer 1 Name	Organizer 1 Email	Organizer 2 Name	Organizer 2 Email

2027 NRSM: Plenary Session Ideas

Topic / Title	Suggested Speaker Name (if known)	Speaker Email

NRSM 2027 Special Session Plans

- Who from your commission is interested in organizing a special session?

Topic / Title (indicated which commission(s))	Organizer 1 Name	Organizer 1 Email	Organizer 2 Name	Organizer 2 Email

Deadline to finalize special sessions is 1 May 2026!

NRSM 2027 Reviewing and Session Chairing Help

- Would you like to volunteer to help review abstracts and summaries submitted to the 2027 NRSM?
 - Most reviewing is done during a 2-week period after the submission deadline in September.
- Would you like to volunteer to help chair sessions as needed during the 2027 NRSM?

USNC-URSI E-Lectures

- Do you have ideas for future E-lecture speakers? Please provide names and emails.
- Last (5th) E-Lecture was on 27 Feb 2026:
“An Overview of Metamaterials from a Transmission-Line Perspective,”
by Prof. George V. Eleftheriades
- Videos and details of previous E-lectures are available:
 - On the USNC-URSI Webpage: https://usncursi.org/e_lectures.php
 - On the USNC-URSI YouTube Channel: <https://www.youtube.com/@USNC-URSI>

Membership Committee Report

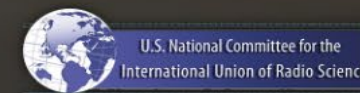
Technical Activity Report

Old Business

New Business

Adjourn

Will someone make a motion to adjourn the meeting?



2026 IEEE International Symposium on Antennas & Propagation and USNC-URSI Radio Science Meeting 12 - 17 July 2026 • Detroit, Michigan, USA

WELCOME TO IEEE AP-S/URSI 2026 IN DETROIT!

URSI Commission-B Special Sessions & Stats

**13 July 2026
Detroit, Michigan, USA**

**Tutku Karacolak
Washington State University Vancouver**



Board on International Scientific Organizations

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

National Academy of Sciences

2026 IEEE International Symposium on Antennas and Propagation and North American Radio Science Meeting
12-17 July 2026 • Detroit, MI

Papers submitted, accepted, rejected, and withdrawn
(Breakdown: AP, URSI, URSI Commissions)

Submitted	Accepted	Rejected	Withdrawn
Total Submitted: 1210 - AP Submitted: 1021 - URSI Submitted: 189	Total Accepted: 1015 - AP Accepted: 847 - URSI Accepted: 168	Total Rejected: 91 - AP Rejected: 85 - URSI Rejected: 6	Total Withdrawn: 104 - AP Withdrawn: 89 - URSI Withdrawn: 15

2026 IEEE International Symposium on Antennas and Propagation and North American Radio Science Meeting, **Detroit**

URSI	Submitted Papers	Accepted Papers	Rejected Papers	Withdrawn Papers	Sessions
A	20	19	0	1	3
B	58	52	3	3	8
C	15	15	0	0	2
D	6	5	1	0	1
E	7	5	1	1	1
F	7	3	0	4	0
G	2	2	0	0	0
H	2	2	0	0	0
J	--	--	--	--	0
K	10	10	0	0	1
URSI Special	62	55	1	6	
Total	189	168	6	15	16

AP-S	Regular Sessions	Special Sessions
	99	32 (27 Joint AP-S/URSI, 5 AP-S)

Total: AP-S/URSI (146 sessions, 1015 papers)	Oral Sessions	Poster Sessions
	117 (903 papers)	29 (112 papers)

2025 IEEE International Symposium on Antennas and Propagation and North American Radio Science Meeting
13-18 July 2025 • Ottawa, Canada

Papers submitted, accepted, rejected, and withdrawn
(Breakdown: AP, URSI, URSI Commissions)

Submitted	Accepted	Rejected	Withdrawn
Total Submitted: 1295 - AP Submitted: 968 - URSI Submitted: 327	Total Accepted: 1166 - AP Accepted: 862 - URSI Accepted: 304	Total Rejected: 59 - AP Rejected: 53 - URSI Rejected: 6	Total Withdrawn: 70 - AP Withdrawn: 53 - URSI Withdrawn: 17

2025 IEEE International Symposium on Antennas and Propagation and North American Radio Science Meeting, **Ottawa**

URSI	Submitted Papers	Accepted Papers	Rejected Papers	Withdrawn Papers	Sessions
A	27	24	2	1	2
B	191	180	2	9	20
C	18	16	0	2	2
D	21	18	1	2	2
E	3	3	0	0	0
F	14	14	0	0	2
G	--	--		--	--
H	--	--		--	--
J	--	--		--	--
K	12	11	0	1	1
URSI Special	41	38	1	2	
Total	327	304	6	17	29

AP-S	Regular Sessions	Special Sessions
	93	18

2026 version of this symposium we have

URSI	Submitted Papers	Accepted Papers	Rejected Papers	Withdrawn Papers
B	58	52	3	3

2024 IEEE International Symposium on Antennas and Propagation and ITNC-USNC-URSI Radio Science Meeting
14-19 July 2024 • Florence, Italy

Papers submitted, accepted, rejected, and withdrawn
(Breakdown: AP, URSI, URSI Commissions)

Submitted	Accepted	Rejected	Withdrawn
Total Submitted: 2022	Total Accepted: 1836	Total Rejected: 28	Total Withdrawn: 158
- AP Submitted: 1603	- AP Accepted: 1464	- AP Rejected: 27	- AP Withdrawn: 112
- URSI Submitted: 419	- URSI Accepted: 372	- URSI Rejected: 1	- URSI Withdrawn: 46

2024 IEEE International Symposium on Antennas and Propagation and North American Radio Science Meeting, Florence

URSI	Submitted Papers	Accepted Papers	Withdrawn Papers	Sessions
A	30	24	5	5
B	190	162	28	18
C	36	35	1	4
D	29	24	5	4
E	3	2	1	0
F	15	12	3	3
G	--	--	--	--
H	--	--	--	--
J	--	--	--	--
K	16	14	2	2
URSI Special	61	60	1	0
URSI Celebratory	39	39	0	1
Total	419	372	46	37

AP-S	Regular Sessions	Special Sessions	Celebratory Sessions
	163	20	6

2026 version of this symposium we have

URSI	Submitted Papers	Accepted Papers	Rejected Papers	Withdrawn Papers
B	58	52	3	3

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

2026 version of this symposium we have

URSI	Submitted Papers	Accepted Papers	Rejected Papers	Withdrawn Papers
B	58	52	3	3

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

2026 version of this symposium we have

URSI	Submitted Papers	Accepted Papers	Rejected Papers	Withdrawn Papers
B	58	52	3	3

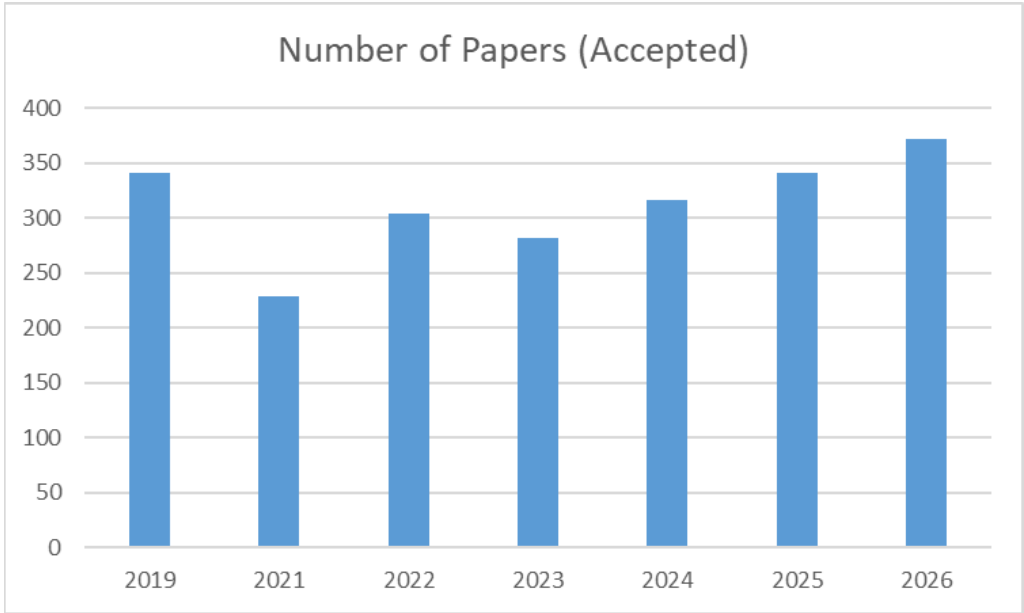
List of Special Sessions AP-S/URSI 2026 (*32 sessions (27 Joint AP-S/URSI, 5 AP-S), Total: 249 papers*)

MO-SS.1P: Metasurface Antennas for Biomedical Sensing, On-Body Communication, and Wireless Power Transfer
MO-SS.2P: Channel Modeling and Antenna/Array Developments for UAVS
MO-SS.3P: Waves in Random Media - In Memory of Akira Ishimaru
MO-SS.4P: IEEE AP-S Industry Application Pitch Competition
TU-SS.1A: Advanced Numerical Modelling and Simulation of Metasurfaces
TU-SS.2A: Celebrating Prof. John L. Volakis' 70th Birthday and Contributions to Antennas and Propagation
TU-SS.3A: Technological Innovation in Next-generation High-power Microwave Antennas I
TU-SS.1P: Advancing Electromagnetics for Half a Century: The Impact of Research and Service of Professor Stuart A. Long
TU-SS.2P: RF/Microwave Systems and Antennas for Space-Based Security and Disaster Management Applications
TU-SS.3P: Theoretical Foundations of CEM for Advanced Applications I
TUP-SS.1P: Recent AI-Driven Design Advancements in RF/Antenna Components and Systems
TUP-SS.2P: RF and Antenna Engineering in Automotive I
TUP-SS.3P: Antennas and RF Systems for Security
TUP-SS.4P: Technological Innovation in Next-generation High-Power Microwave Antennas II
WE-SS.1A: Sub-THz Antenna and Array Technologies: Frontiers in Design, Materials, Fabrication, Packaging, and Characterization
WE-SS.2A: Celebrating the 20th Anniversary of EuCAP and EurAAP: Two Decades of Collaboration with IEEE AP-S
WE-SS.3A: Computational Techniques for Antenna Analysis and Design
WEP-SS.1A: Development of Implantable and Wearable Multi-Band Antennas for Biomedical Applications
WE-SS.1P: Metasurface and Materials for mmW and THz: Theory, Design, and Characterization
WE-SS.2P: Passive and Semi-Passive Control of RF Structures: Bridging Antennas, Surfaces, and Waveguides
WE-SS.3P: Learning-based and Unconventional Techniques for Inverse Scattering Problems
WEP-SS.1P: Transforming Future Healthcare through Biomedical and Bio-electromagnetic Technologies
TH-SS.1A: RF and Antenna Engineering in Automotive II
TH-SS.2A: Challenges and Solutions for Using Metasurfaces and Metagratings in Next-generation Wireless Communication and Sensing Systems I
TH-SS.3A: Reconfigurable and Intelligent Antenna Systems for Next-Generation Wireless Systems
TH-SS.1P: Advancements in Technology Based on Kildal's Inventions: A Tribute to Prof. Kildal on the 10th Anniversary of His Passing
TH-SS.2P: Channel Characterisation on Mobility
TH-SS.3P: Advances in Implantable Antenna for Biomedical Treatment, Monitoring, and Wireless Power Transfer
TH-SS.4P: Advances in Millimeter-Wave Transceiver Front-End Technologies
FR-SS.1A: Massive MIMO and Beamforming Technologies for 5G/6G Communications
FR-SS.2A: Electromagnetics for NextG Wireless: From Physics to Intelligence
FR-SS.3A: Intersections of Quantum and Electromagnetic Technologies

NRSM 2026 Statistics

Category	2019	2021	2022	2023	2024	2025	2026
Total Submissions	342	236	309	286	323	344	380
Total Accepted	341	229	304	282	316	341	372
Total Withdrawn	0	10	8	1	3	3	8
Total Presented	341	219	296	281	313	341	372
Number of Sessions	46	40	47	37	50	59	63
Number of Special Sessions	27	20	21	20	27	33	36

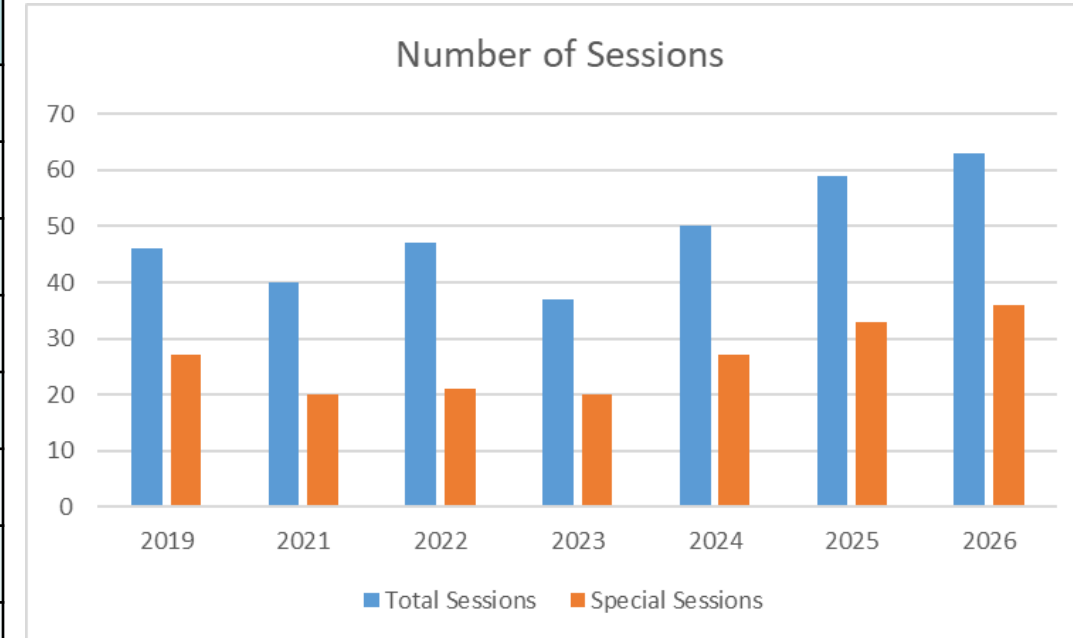
Number of Papers (Accepted)



2026	Total Submissions	Total Accepted	Total Withdrawn	Total Presented	Number of Sessions
A	10	10	0	10	2
B	38	38	0	38	5
C	15	14	1	14	2
D	4	4	0	4	1
E	7	7	0	7	1
F	30	29	1	29	5
G	21	21	0	21	4
H	13	13	0	13	3
J	16	16	0	16	3
K	13	13	0	13	1
SS (Special Sessions)	213	207	6	207	36

National Radio Science Meeting Conference Statistics

Year	# Papers	# Sessions	# Travel Grants
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	229	40	22
2022	304	47	--
2023	282	37	59
2024	316	50	78
2025	341	59	74
2026	372	63	60



- In 2026, one page abstracts: 269 and two page summaries: 111
- In 2025, one page abstracts: 250 and two page summaries: 91
- 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

Commission B Special Sessions, 2026 USNC-URSI NRSM, Boulder, Colorado

Special sessions: 8 sessions, 63 papers; B regular sessions: 5 sessions, 36 papers, (total URSI: 63 sessions, 36 special sessions, 372 papers)

Commission B Special Sessions:

1. Wearable Antennas (Joint B - K Session, 10 papers)

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

2. Multifunctional Antennas and Arrays for Satellite and Wireless Communications (4 papers)

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

3. Quantum Technology Applications (Joint A - B - F Session, 9 papers)

Saba Mudaliar, AFRL (saba.mudaliar@us.af.mil), Thomas Roth, Purdue University (rothte@purdue.edu), and Matthew Simons, NIST (Matthew.simons@nist.gov)

4. New Applications Enabled by Intelligent Surfaces in Future Wireless Networks (10 papers)

Mohammadreza F. Imani, Arizona State University (mohammadreza.imani@asu.edu) and Georgios Trichopoulos, Arizona State University (gtrichop@asu.edu)

5. Advanced Modeling Techniques and Algorithms in Computational Electromagnetics (5 papers)

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

6. Antennas for Novel Platforms and RIS (10 papers)

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

7. Analytical and Numerical Methods in EM Theory and Applications - In Memory of Chalmers M. Butler (10 papers)

Piergiorgio L. E. Uslenghi, University of Illinois-Chicago (uslenghi@uic.edu) and Donald R. Wilton, University of Houston (wilton@uh.edu)

8. Non-LTI Electromagnetics - Progress, Challenges, and Opportunities (5 papers)

Ryan Westafer, Georgia Tech University (Ryan.Westafer@gtri.gatech.edu) and Daniel Richardson, University of Colorado Boulder (Daniel.Richardson@colorado.edu)

Commission B Special Sessions, 2025 USNC-URSI NRSN, Boulder, Colorado
Special sessions: 9 sessions, 59 papers; B regular sessions: 4 sessions, 30 papers
(total URSI: 59 sessions, 33 special sessions, 341 papers)

1. WPT for Novel and Challenging Applications (Joint B - K Session, 10 papers)

Ifana Mahbub, Univ. of Texas, Dallas (Ifana.Mahbub@utdallas.edu) and David Jackson, Univ. of Houston (djackson@uh.edu)

2. Multifunctional Antennas and Arrays for Satellite and Wireless Communications (5 papers)

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. Quantum Technology Applications in Electromagnetics and Remote Sensing (Joint B - F Session, 10 papers)

Saba Mudaliar, AFRL (saba.mudaliar@us.af.mil) and Thomas Roth, Purdue University (rothte@purdue.edu)

4. Reconfigurable Intelligent Surfaces for Sensing and Imaging (10 papers)

Mohammadreza F. Imani (mohammadreza.imani@asu.edu) and Georgios Trichopoulos (gtrichop@asu.edu), Arizona State University

5. Advanced Modeling Techniques and Algorithms in Computational Electromagnetics (5 papers)

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

6. High Power Electromagnetic Environment Effects (4 papers)

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

7. Reflectarrays and Reconfigurable Apertures (5 papers)

John Volakis (jvolakis@fiu.edu) and Stavros Georgakopoulos (georgako@fiu.edu), Florida International University

8. Antenna and RF self-interference suppression techniques for in-band full-duplex communication systems (5 papers)

Nader Behdad, Univ. of Wisconsin-Madison (behdad@wisc.edu) and Hung Luyen, Univ of North Texas (hung.luyen@unt.edu)

9. Spectrum management and Secure Communications (5 papers)

John Volakis, Florida International Univ. (jvolakis@fiu.edu) and Satish K. Sharma, San Diego State Univ. (ssharma@sdsu.edu)

Commission B Special Sessions, 2024 USNC-URSI NRSN, Boulder, Colorado

7 special sessions (29 papers) B regular sessions: 41 papers, (total URSI: 50 sessions, 316 papers)

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) (10 papers)

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) (5 papers)

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) (No paper)

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) (6 papers)

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) (3 papers)

6. Advanced Modeling Techniques and Algorithms in Computational Electromagnetics

Ata Zadehgo, University of Idaho (azadehgo@uidaho.edu) and Johannes Russer, Technical University of Munich (jrusser@tum.de) (No papers)

7. Progress in Reconfigurable Intelligent Surfaces (RIS)

Filippo Capolino, University of California, Irvine (f.capolino@uci.edu); Satish K. Sharma, San Diego State University (ssharma@sdsu.edu) (5 papers)

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

7 special sessions (50 papers), B regular sessions: 20 papers, (total URSI: 37 sessions, 282 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 Zadehghol, University of Idaho (azadehghol@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, 304 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 confirmed so far, **2027 USNC-URSI NRSM**, Boulder, Colorado

7 special sessions July 9, 2026

1. Advanced Electromagnetic Modeling, Simulation, and Digital Twin for Biomedical Antennas, Sensors, and Systems (Joint B - K Session)

Sima Noghanian (sima_noghanian@ieee.org) and Yahya Rahmat-Samii (rahmat@ee.ucla.edu)

2. Millimeter and Submillimeter-Wave Components and Instruments (Joint B - J Session)

Priyanka Mondal (pmondal@american.edu) and Bill Shillue (bshillue@nrao.edu)

3. Quantum EM Technology Applications (Joint A - B - F Session)

Saba Mudaliar (saba.mudaliar@us.af.mil), Thomas Roth (rothte@purdue.edu), and Matthew Simons (Matthew.simons@nist.gov)

4. Complex-Frequency Waves

Vitali Kozlov (vkozlov@gc.cuny.edu) and Aleksandr Krasnok (akrasnok@fiu.edu)

5. Advanced Modeling Techniques and Algorithms in Computational Electromagnetics

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

6. Adaptive and Reconfigurable Platforms for Next-Generation Communication and Sensing

David Jackson (djackson@uh.edu) and Reyhan Baktur (reyhan.baktur@usu.edu)

7. Advancing Non-LTI Electromagnetics

Ryan Westafer (rwestafer@ieee.org), Majid Manteghi (manteghi@vt.edu), and Tony Grbic (agrbc@umich.edu)

Special Sessions for National Radio Science Meeting 2027

- Please contact Tutku Karacolak within two weeks if you are still interested in organizing special session for the NRSM 2027.
- 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 2027 in Boulder during January 5-7, 2027
- Email: tutku.karacolak@wsu.edu

USNC/URSI Commission B Membership Committee

Steven Weiss (chair) – The Johns Hopkins University

Commission B
July 2026

Membership Guidelines

■ Required qualifications:

- Nominees for Full Member must be citizens or permanent residents of the US.
- Nominees for Associate Member must reside in the US, and Associate Members must reside in the US, to remain Associate Members. There is no citizenship or permanent residency requirement for Associate Members.
- Nominees for Early Career Member must be either (a) enrolled as a student at a US university, or (b) employed at a US university or government organization, or at a company with facilities in the US, and must reside in the US. Early Career Members must continue to reside in the US to remain Early Career Members. There is no citizenship or permanent residency requirement for Early Career Members.

Membership Guidelines

■ Required qualifications:

- Nominees for Early Career Member are limited to individuals having ten (10) years or fewer of professional experience since their last academic degree (bachelor's or higher). The experience need not be continuous.
- Any member of the Commission can nominate qualified persons for Member, Associate Member, or Early Career Member in the Commission, provided that the person making the nomination holds a level of membership at least as high as the level for which the nomination is made. A separate nomination form should be completed for each nominee.
- No limit is imposed on the number of nominations which a Commission member can make if the nominees are from outside the sponsor's institution. A sponsor is allowed to nominate one person from his or her own organization for Member and one for Associate Member for consideration at any one regular meeting of the Commission. No limit is imposed on the number of Early Career Member

Membership Guidelines

■ Required qualifications:

- Membership in Commissions of USNC-URSI is predicated on technical competence in Radio Science/Engineering and interest in the activities of USNC-URSI and URSI. Evidence of technical competence is to be found from the nominee's publications and accomplishments, and evidence of interest in the activities of URSI is to be supported by the nominee's participation in URSI symposia. Guidelines for minimum requirements are as follows:

- Full Member: Five to six journal publications and three USNC-URSI or URSI presentations, with two in the Commission. In addition, Member nominees should have evidence of scientific maturity and leadership in their work.
- Associate Member: Two to three journal publications and two USNC-URSI or URSI presentations, with one in the Commission.
- Early Career Member: co-author of one USNC-URSI or URSI presentation in the Commission and attendance at one USNC-URSI symposium.
- Allowances will be made for fewer articles of special significance, or for scientific and research accomplishments of unusual merit.

Membership Guidelines

- Required qualifications:

- Nominations are normally considered only at the regular Business Meetings of the Commission. Exceptions to this (e.g., holding elections of new Members by email voting) are allowed by the USNC-URSI Constitution; the USNC-URSI Executive Committee (Chair, Secretary/Chair-Elect, Immediate Past Chair, and Accounts Manager) should be informed in advance of an email election of new Members. The results of the election must be forwarded to the USNC-URSI Executive Committee as soon as possible after the election is held.
- Early Career Members and Associate Members are nonvoting members of the Commission; Full Members are voting members of the Commission. Early Career Members and Associate Members may not serve as officers of the Commission. They may serve on committees of the Commission as directed by the Chair or Vice Chair of the Commission.

Commission B Nominees: Early Career Member

Nominee:

- Name: Steven B. Perry
- Organization: Auburn University
- Email: steven.perry@auburn.edu
- Phone: +1-256-509-4354
- Citizenship: U.S. Citizen

Category of Membership:

- Commission: B – Fields and Waves
- Membership Level: Early Career Member

A Member of the Commission who knows the Nominee:

- Name: W. Clint Snider
- Organization: Auburn University
- Email: wcsnider@auburn.edu
- Phone: +1-334-844-1874

Educational background: B.S. in Physics (2018–2022) and B.S. in Electrical Engineering (2022–2024), Auburn University. Currently pursuing a Ph.D. at Auburn University (2024–present) under Dr. W. Clint Snider.

Radio science experience: numerical methods for computational electromagnetics, including FDTD simulations for spherical geometry and plasmas, with emphasis on the Earth-ionosphere waveguide.

Publication requirements: met.

Commission B Nominees: Full Member

Nominee:

- Name: Ata Zadehgoal
- Organization: University of Idaho
- Email: azadehgoal@uidaho.edu
- Phone: 208-885-9000
- Citizenship: U.S. Citizen

Category of Membership:

- Commission: B – Fields and Waves
- Membership Level: Full Member

A Member of the Commission who knows the Nominee:

- Name: Prof. Reyhan Baktur
- Organization: Utah State University
- Email: reyhan.baktur@usu.edu
- Phone: 435-797-2955

Educational background: Ph.D. in ECE, University of Illinois at Urbana-Champaign, 2011; M.S. in ECE, University of California at Davis, 2006; B.S. in Electrical Engineering, University of Washington at Seattle, 1996.

Radio science experience: theoretical, applied, and computational electromagnetics; computational algorithms for arbitrary structures; signal/power integrity; EMC; model-order reduction; equivalent circuit synthesis; AI/ML-aided modeling; and quantum science and engineering.

Publication requirements: met.

Membership Recommendations

Election to Full Member:
Ata Zadehgo

Election to Early Career Member:
Steven B. Perry