

#### International Union of Radio Science U.S. Commission B

J. Volakis, Chair J. Simpson, Vice-Chair R. Baktur, Secretary

#### Please reply to:

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#### MINUTES Commission B Business Meeting

2017 USNC-URSI San Diego, CA, USA July 10, 2017

- 1. Chair John Volakis called the meeting to order at 5:09 pm.
- 2. Welcome to members and guests.
- 3. Introduction of guests.
- 4. Introduced USNC Commission B, USNC, and URSI officers.
- 5. Jamesina Simpson becomes USNC-URSI Commission B Chair starting January 1, 2018.
- 6. Nominations are requested for USNC-URSI Vice-Chair. Please send nominations to John Volakis by Aug. 14, 2017.
- 7. Paper submission is now open for the 2018 National Radio Science Meeting in Boulder, CO (Jan. 4-7, 2018).
- 8. Ross Stone presented an overview of the URSI membership requirements.
- 9. Ross Stone encouraged everyone to attend the 2017 URSI GASS in Montreal, Quebec, Canada (Aug. 19-16, 2017).
- 10. Ross stone presented an overview of the URSI triennial flagship meetings (GASS, AT-RASC, AP-RASC).
- 11. Upcoming meetings A list of the upcoming meetings taking place in the next two years was presented.
- 12. Technical Activities Report
  - Branislav Notaros, Chair of the USNC-URSI Commission B Technical Activities Committee, presented the Technical Activities Report (attached at the end of these meeting minutes).
  - The special sessions and statistics for USNC-URSI Commission B participation in the 2017 Radio Science Meeting in San Diego were presented:

- Total papers: 1946 submitted, 1792 accepted
- o USNC-URSI papers: 438 submitted, 412 accepted, 0 rejected
- USNC-URSI Commission B papers: 233 submitted, 224 accepted, 0 rejected
- 18 AP/URSI joint special sessions
- The statistics for the submissions and special sessions at the 2017 National Radio Science Meeting in Boulder, CO were summarized.
- 10 special sessions are confirmed for the 2018 National Radio Science Meeting.
- 13. Committee Report-- Membership Committee
  - Kathie Melde (filled in for Ed Rothwell) Presented Membership Report
  - Nominations were as follows:
    - Maria Pour U. Alabama Huntsville full member
    - Payam Nayeri Colorado School of Mines full member
    - Stavros Georgakopoulos Florida International University full member
    - Marco Poort University of Illinois Chicago early career member
    - o Elias Alwan Florida International University early career member
    - o Asimina Kiourti Ohio State early career member
  - Members in attendance voted to accept all of those nominations.
- 14. Chair Report-- Old Business
  - Karl Warnick asked if John Volakis was the "Old Business". Polite laughter.
  - Branislav Notaros informed Karl that this was an inappropriate wise crack ©.
- 15. Chair Report-- New Business

None.

16. Adjourned at 5:50 pm.

Minutes taken by Karl Warnick for Reyhan Baktur. Respectfully submitted by Reyhan Baktur, Secretary

#### **Guests in attendance**

Ahmed Hassan, Fabria Labeau, Yahia Antar, Rodney Vaughn, Deanna Sessions, Ruisi He

#### Members in attendance

Nathan Champagne, Goutam Chattopadhyay, Atef Elsherbeni, Levent Gurel, Susan Hagness, Gregory Huff, David Jackson, Joseph Kotulski, Stuart Long, Eric Michielssen, Eric Mokole, Niru Nahar, Branislav Notaros, Yahya Rahmat-Samii, Sembiam Rengarajan, Kamalesh Sainath, Kamal Sarabandi, Kubilay Sertel, Balasubriamaniam Shanker, Jamesina Simpson, George Uslenghi, Dan Weile, Doug Werner, Alexander Yakovlev, Rick Ziolkowski, Andrea Alu, Ioannis Besieris, Gerald Burke, Robert Burkholder, Danilo Erricolo, Peder Hansen, Ahmed Kishk, Ron Marhefka, Bob Nevels, Sima Noghanian, Ron Pogorzelski, Satish Sharma, Georgios Trichopoulos, Steven Weiss, Alexander Yakovlev, Ali Yilmaz, Karl Warnick, Kathie Melde, John Volakis, Gary Brown



## USNC-URSI Commission-B Business Meeting

Monday, July 10, 2017 5:00 – 6:00 p.m.

Location: Regatta





AGENDA

USNC Commission-B Business Meeting

- Welcome to members and guests
- USNC and International URSI officers
- Approval of Boulder 2017 Meeting Minutes
- Vice Chair Nominations (Term starting Jan 2018)
- Upcoming meetings

### **COMMITTEE REPORTS**

- Technical Activities Report (Branislav Notaros)
- Membership Comt. (Kathie Melde for Ed Rothwell)
- Old business
- New business
- Adjourn



## Commission B Officers

USNC Commission-B Business Meeting

## USNC-B Officers 2015-2017

Chair: John L. Volakis

Vice-Chair: Jamesina Simpson

Secretary: Reyhan Baktur

Chair, TAC: Branislav Notaros

Chair, Membership Committee: Edward Rothwell

Webmaster:

Chelsea Bock, <u>CBock@nas.edu</u> at National Academies

Web Site <a href="http://sites.nationalacademies.org/PGA/biso/URSI/PGA\_080674">http://sites.nationalacademies.org/PGA/biso/URSI/PGA\_080674</a>





USNC Commission-B Business Meeting

USNC Officers 2015-2017

Chair: David Jackson

Past-Chair: Steven C. Reising

Secretary and Chair-Elect: Sembiam Rengarajan

Accounts Manager: **Gary Brown** National Acad. BISO Director: **Kathie Bailey** National Acad. Senior Program Officer: **Ana M. Ferreras** 

Consult Web Site Below for updates: http://sites.nationalacademies.org/PGA/biso/URSI/PGA\_067360

## USNC-URSI Members (2015-2017) MEMBERS at LARGE

**Reyhan Baktur** 

Danilo Erricolo

Albin J. Gasiewski

W. Devereux (Dev) Palmer

Wayne Scales

Jamesina J. Simpson

A Member-at-Large is someone who does not represent one particular Commission, but rather represents the USNC-URSI as a whole.

These are voting positions.

## **Society Representatives**

Randy Haupt (IEEE AP-S)

David Kunkee (IEEE GRS-S)

T. Joseph W. Lazio (American Astronomical Society)

Robert E. Marshall (American Meteorological Society)

Steven C. Reising (IEEE MTT-S)

Fabiano S. Rodrigues (American Geophysical Union)

These are voting positions

## **Other USNC-URSI Representatives**

Student Travel Program & Paper Competition:

**Erdem Topsakal** Virginia Commonwealth University



## International URSI-B officers

USNC Commission-B Business Meeting

International URSI-B Officers 2015-2017

Chair: Ari Sihvola (Finland)

Vice-Chair: Kazuya Kobayashi (Japan)



## International URSI Officers

USNC Commission-B Business Meeting

## International URSI Officers 2015-2017

President: Paul Cannon (UK) Past-President: Phil Wilkinson (Australia)

Vice Presidents: Subra Ananthakrishnan (India) Makato Ando (Japan) Yahia Antar (Canada) Umran Inan (USA)

Secretary-General: Paul Lagasse (Belgium) Asst. Secretary-General of Publications: Ross Stone (USA) Asst. Secretary-General (AT-RASC): George Uslenghi (USA) Asst. Secretary-General (AP-RASC): Kazuya Kobyashi (Japan)

# Nominations for new Vice Chair

Nominations and Self Nominations are Invited for the Vice Chair whose term will start on Jan 1, 2018.

Newly elected Vice Chair will become the Commission B Chair on Jan 1, 2021.

Kindly, please send nomination to John Volakis at volakis.1@osu.edu, or jvolakis@fiu.edu

Deadline for nominations is Aug. 14<sup>th</sup>.

# **URSI** Membership

- Full Member must be citizens or permanent residents of the US.
- **Associate Member** must reside in the US, and Associate Members must reside in the US to remain Associate Members (no residency requirement).
- Early Career Member (under age of 36) 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. Must transition to Assoc. or Full member afterwards.

### Nomination Process:

 Any member of the Commission can nominate qualified persons. Nominations must be done at

http://sites.nationalacademies.org/pga/biso/ursi/pga\_067375

 All members of USNC-URSI Commissions will automatically be endorsed by USNC-URSI once they apply for URSI membership

# **Upcoming Meetings**

XXXII<sup>nd</sup> International Union of Radio Science General Assembly & Scientific Symposium

Palais des congrès, Montréal, Canada August 19-26th, 2017

## www.ursi2017.org

XXXII<sup>e</sup> Union Radio-Scientifique Internationale Assemblée générale et symposium scientifique

Palais des congrès, Montréal, Canada 19-26 août 2017

# MARK YOUR CALENDAR!







2017 General Assembly and Scientific Symposium August 19-26, 2017

## Special Celebration Events Planned due to

- 375<sup>th</sup> anniversary of Montreal,
- 150<sup>th</sup> anniversary of Canada

http://www.ursi2017.org/side\_program/ scientific\_program/aboutsciprog\_e.shtml



## www.gass2017.org

# **URSI** Triennial Flagship Meetings

# GASS, AT-RASC, AP-RASC GASS: 2014, 2017, 2020 AT-RASC: 2015, 2018, 2021 AP-RASC: 2016, 2019, 2022

#### AP-RASC 2019



Date 9-15 March 2019

Location New Delhi, INDIA

#### AT-RASC 2018



Date 28 May - 1 June 2018

Location Gran Canaria, Spain

#### **URSI GASS 2017**



Date 19-26 August 2017

Location Montreal, Canada 2018 USNC-URSI, Jan 4-7 Boulder Meeting (paper submission web site is now open)

> Abstract / Summary Submissions and Student Paper Competition Submissions are due by September 18, 2017 This is a FIRM DEADLINE! Please visit www.nrsmboulder.org

•Student Travel Grant awards to both graduate and undergraduate students

•Ernest K. Smith Student Paper Competition. The first place winner will receive \$1000, the second place winner will receive \$750, and the third place winner will receive \$500. The meeting website (<u>http://www.nrsmboulder.org/</u>) will be updated soon with more information.



## **Upcoming Meetings**

USNC Commission-B Business Meeting

See Site <a href="http://www.ursi.org/en/events.asp">http://www.ursi.org/en/events.asp</a>

**2017 ICEAA-IEEE APWC,** Verona, Italy, Sept 11-15 **2017 URSI General Assembly**, August 19-26, 2017 **2017** Metamaterials, Marseille, France, 28 Aug-2 Sept, 2017 **2017 AMTA**, <u>http://www.amta2017.org/</u>, **Atlanta**, **Georgia**, **October 15–20**, **2017 2017** Int Sympsium on Antennas and Propagation, Phuket, Thailand, 30 Oct – 2Nov **2017 PIERS, Singapore, Nov 19-22, 2017 2017 ACES Conference, Suzhou, China, August 1-4 2018 IEEE Conf on Antenna Measurements & Appl. (CAMA), March 27-28 2018 EuCAP, London, UK, 9-13 April 2018 2018** Int. Workshop on Antenna Technology (iWAT), Nanjing, China, March 5-7. **2018 USNC-URSI Boulder Meeting, Jan 5-7 2018 2nd AT-RASC, 28 May-1 Jun, ExpoMeloneras Convention Center, Gran Canaria 2018, IEEE APS/URSI Symposium, July 14-21, Boston, MA, 2018 ACES Conference, Denver, CO. March 24-29. 2018** ImBioC Conference, Philadelphia, June 14-15 **2019 URSI Commission B EMTS**, May 27-31, San Diego, CA. Contact Sembiam Rengarajan.



## **Committee Report**

USNC Commission-B Business Meeting

## **Technical Activities Report:** Branislav Notaros



## **Committee Report**

USNC Commission-B Business Meeting

## **URSI B Membership Nominations:**

Kathie Melde for Ed Rothwell





USNC Commission-B Business Meeting

Old Business?
New Business?
Adjourn



## URSI Commission-B Special Sessions & Stats

## 10 July 2017 San Diego

Branislav M. Notaros Colorado State University



2017 IEEE International Symposium on Antennas and Propagation/USNC-URSI National Radio Science meeting, July 9–14, 2017, **San Diego**, California

Papers submitted, accepted, rejected, and withdrawn

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

Submitted	Accepted Rejected		Withdrawn
Total Submitted: 1946	Total Accepted: 1792	Total Rejected: 67	Total Withdrawn: 87
- AP Submitted: 1507	- AP Accepted: 1380	- AP Rejected: 67	- AP Withdrawn: 60
- URSI Submitted: 438	- URSI Accepted: 412	- URSI Rejected: 0	- URSI Withdrawn: 27
- URSI from US: 254	- URSI from US: 240	- URSI From US: 0	- URSI from US: 14
- URSI from non-US: 184	- URSI from non-US: 172	- URSI From non-US: 0	- URSI from non-US: 13

2016 IEEE International Symposium on Antennas and Propagation/USNC-URSI National Radio Science meeting, June 26 - July 1, 2016, Fajardo, Puerto Rico

Papers submitted, accepted, rejected, and withdrawn

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

Submitted	Accepted	Rejected	Withdrawn
Total Submitted: 1620	Total Accepted: 1458	Total Rejected: 77	Total Withdrawn: 76
- AP Submitted: 1218	- AP Accepted: 1100	- AP Rejected: 67	- AP Withdrawn: 45
- URSI Submitted: 402	- URSI Accepted: 358	- URSI Rejected: 10	- URSI Withdrawn: 31
- URSI from US: 233	- URSI from US: 217	- URSI From US: 1	- URSI from US: 8
- URSI from non-US: 169	- URSI from non-US: 141	- URSI From non-US: 9	- URSI from non-US: 23

2017 IEEE International Symposium on Antennas and Propagation/USNC-URSI National Radio Science meeting, July 9–14, 2017, **San Diego**, California

Papers submitted, accepted, rejected, and withdrawn

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

Submitted	Accepted	Rejected	Withdrawn	
Total Submitted: 1946	Total Accepted: 1792	Total Rejected: 67	Total Withdrawn: 87	
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- URSI Submitted: 438	- URSI Accepted: 412	- URSI Rejected: 0	- URSI Withdrawn: 27	
- URSI from US: 254	- URSI from US: 240	- URSI From US: 0	- URSI from US: 14	
- URSI from non-US: 184	- URSI from non-US: 172	- URSI From non-US: 0	- URSI from non-US: 13	

2015 IEEE AP-S Int. Symposium & North American URSI Mtg., Vancouver, BC, Canada Papers submitted, accepted, rejected, and withdrawn

(Breakdown: AP, URSI, URSI from US authors, URSI from Canadian authors)

Submitted	Accepted	Rejected	Withdrawn
Total Submitted: 1974	Total Accepted: 1867	Total Rejected: 105	Total Withdrawn: 31
- AP Submitted: 1392	- AP Accepted: 1301	- AP Rejected: 89	- AP Withdrawn: 24
- URSI Submitted: 572	- URSI Accepted: 549	- URSI Rejected: 16	- URSI Withdrawn: 7
- URSI From US: 328	- URSI from US: 322	- URSI From US: 6	- URSI from US: 6
- URSI From Canada: 56	- URSI from Canada: 56	- URSI From Canada: 0	- URSI from Canada: 0

#### 2017 IEEE AP-S International Symposium & USNC-URSI Meeting, San Diego, California

URSI	Submitted Papers	Accepted Papers	Withdrawn Papers	Sessions
Α	34	32	2	4
В	233	224	9	34
С	20	16	4	3
D	10	6	4	1
E	10	9	1	1
F	54	52	2	7
G	0	0	0	0
J	0	0	0	1
K	23	20	3	3
<b>URSI Special</b>	54	52	2	0
Total	438	411	27	54

2016 IEEE AP-S International Symposium & USNC-URSI Meeting, Fajardo, Puerto Rico

URSI	Submitted Papers	<b>Accepted Papers</b>	Sessions
Α	29	23	3
В	217	195	27
С	19	17	3
D	7	7	1
E	7	7	1
F	48	38	6
G	0	0	0
J	2	2	1
K	15	14	3
URSI Special	58	55	0
Total	402	358	64

#### 2017 IEEE AP-S International Symposium & USNC-URSI Meeting, San Diego, California

URSI	Submitted Papers	Accepted Papers	Withdrawn Papers	Sessions
Α	34	32	2	4
В	233	224	9	34
С	20	16	4	3
D	10	6	4	1
E	10	9	1	1
F	54	52	2	7
G	0	0	0	0
J	0	0	0	1
K	23	20	3	3
<b>URSI Special</b>	54	52	2	0
Total				

2015 IEEE AP-S Int. Symposium & North American URSI Mtg., Vancouver, BC, Canada

URSI	Submitted Papers	<b>Accepted Papers</b>	Sessions
Α	28	27	3
В	292	279	35
С	13	13	2
D	10	9	2
Ε	12	10	1
F	80	78	10
G	6	4	1
J	10	10	1
K	47	46	7
<b>URSI Special</b>	74	73	1
Total	572	549	64

#### 2017 IEEE AP-S/URSI San Diego

#### URSI B Sessions – UB (34 sessions, 224 papers)

- TH-UB.2P 3D Printed and Planar Structures
- TU-UB.2A Acceleration Rechniques for Integral Equations
- FR-UB.2P Advanced Concepts in Metamaterials
- TH-UB.1P Advances in Differential Equation Based Methods
- TU-UB.1A Advances in Integral Equation Methods I
- TU-UB.3P Advances in Integral Equation Methods II
- WE-UB.2A Antenna Measurements
- WE-UB.3A Antenna Theory and Design
- TUP-UB.1P Array Design and Optimization
- TUP-UB.2P Arrays for Space, Satellite and Optical Applications
- TUP-UB.3P Beamforming Networks for Antennas and Arrays
- TUP-UB.4P Broadband and Tunable Arrays
- FR-UB.4A Electromagnetic Interaction, Propagation and Scattering
- WE-UB.4A Electromagnetic Metasurfaces
- MO-UB.4P EM Educational Methods and Tools
- WE-UB.1P Fast Methods and Parallelization Techniques
- FR-UB.2A Frequency Domain Methods
- MO-UB.2P Frequency Selective Surfaces and Filters
- FR-UB.3A Hybrid and Optimization Techniques
- MO-UB.1P Metamaterial Based Designs
- THP-UB.1P Microstrip Antennas and Printed Devices
- FR-UB.7P Microwave Imaging
- TH-UB.2A Millimeter Wave Antennas
- FR-UB.6P MIMO Antennas and Systems
- WE-UB.1A Miniature Antennas and Metamaterial Devices
- TU-UB.1P Nano-antennas and Nano-structures
- FR-UB.4P Propagation Phenomena and Scattering of EM Waves
- TH-UB.1A Reconfigurable Antennas and Cognitive Radio

- MO-UB.3P RFID and RF Measurements
- TU-UB.2P Small Antennas
- FR-UB.1P Terahertz Antennas and Focal Plane Arrays
- FR-UB.3P Theory and Application of Guided Waves
- FR-UB.1A Time Domain Methods
- FR-UB.5P Wave-guiding Devices and Applications

#### 2017 IEEE AP-S/URSI San Diego AP-S/URSI Joint <u>Special Sessions – SP (18 sessions</u>)

Special Session in Honor of Per Simon Kildal Advancement of Metasurfaces and Lenses beyond 4G and 5G Higher Symmetries for Flat Meta-Lenses Additive Manufacturing in Antennas and RF Systems For Reference: Compress 2012 APS/URSI Chicago, IL: 13 APS/URSI Joint Special Sessions Physical R 2013 APS/URSI Orlando, FL: 10 APS/URSI Joint Special Sessions 2014 APS/URSI Memphis, TN: 16 APS/URSI Joint Special Sessions Emerging 2015 APS/URSI Vancouver, Canada: 19 APS/URSI Joint Special Theoretica Sessions Automotiv 2016 APS/URSI Puerto Rico: 16 APS/URSI Joint Special Sessions Loaded Ar 2017 APS/URSI San Diego: 18 APS/URSI Joint Special Sessions Innovative Phased Arrays and Beamforming Technology Applications of Electromagnetics and RF Techniques in Medicine and Biology History of APS: Early Legends of the Field Modern Longwave Antennas In Body Devices for Wireless Biotelemetry: Implants and Ingestibles Handset LTE Antenna Design and Challenges Wideband Phased Arrays for 5G Wireless and Beyond Benchmarking at the Frontiers of Computational EM

echanics

## 2017 National Radio Science Meeting Conference Statistics

Total number of pre-registrants: 348

Total abstracts and summaries submitted: 425

Total abstracts and summaries accepted: 421

Number of sessions: 56

Total number of Student Travel Grant Award applications: 137

	2017	2016	2014	2013	2012	2011
Total No. of papers	421	375	399	364	369	358
Total No. of sessions	56	49	54	47	47	49
Total No. of travel grants	137	122	115	100	104	113

#### Commission B Regular Sessions, 2017 USNC-URSI NRSM, Boulder, Colorado

**10** regular sessions, **75** papers (total URSI: **56** sessions, **421** papers)

<b>Regular Session Title</b>	No. of Papers	Chairs
1. B3: Antennas	10	Dejan Filipovic, University of Colorado Boulder; Karl Warnick, Brigham Young University
2. B4: Scattering	5	Alex Yuffa, National Institute of Standards and Technology; Piergiorgio Uslenghi, University of Illinois at Chicago
3. B5: Liquid Metal Antennas	5	Jacob Adams, North Carolina State University; William Davis, Virginia Tech
4. B6: Complex Media and Nanoelectromagnetics	10	Edward Kuester, University of Colorado Boulder; Christos Argyropoulos, University of Nebraska- Lincoln
5. B8: Inverse Scattering and Remote Sensing	5	Piergiorgio Uslenghi, University of Illinois at Chicago; Pai-Yen Chen, University of Texas at Austin
6. B9: Antenna Arrays I	9	Randy Haupt, Colorado School of Mines; Dejan Filipovic, University of Colorado Boulder
7. B13: Antenna Measurements and Simulations	8	Steven Weiss, US Army Research Lab; Jeanne Quimby, NIST
8. B14: Antenna Arrays II	8	Dejan Filipovic, University of Colorado Boulder; Gokhan Mumcu, University of South Florida
9. B16: Microstrip Antennas and Printed Devices	9	Erdem Topsakal, Virginia Commonwealth University; Ozlem Kilic, The Catholic University of America
10. B17: Numerical Methods	6	Atef Elsherbeni, Colorado School of Mines; Melinda Piket-May, University of Colorado

Commission B Special Sessions, 2017 USNC-URSI NRSM, Boulder, Colorado

**<u>8</u>** special sessions, <u>63</u> papers (total URSI: <u>56</u> sessions, <u>421</u> papers)

Special Session Title	No. of Papers	Organizers
1. Adv. Theory & Applications of Metamaterials	10	Filippo Capolino, UC Irvine, & Ashwin Iyer, Univ. of Alberta
2. Advances in CEM and Emerging Applications	10	Branislav Notaros, Colorado State, & Yahya Rahmat-Samii, UCLA
<b>3.</b> Adv. Analysis, Design, & Appl. of WG Structures	5	Michael Havrilla, Air Force Ins of Tech, & Edward Rothwell, Michigan State
4. Advanced Modeling of EM Propagation	6	Jamesina Simpson, Univ. of Utah & Robert Marshall, Univ. of Colorado
5. Terahertz Antennas and Applications	10	Kubilay Sertel, Ohio State, & Georgios Trichopoulos, Arizona State
6. Wearable Antennas and Electronics	9	Asimina Kiourti, Ohio State, & Bashir Morshed, Univ. of Memphis
7. Antennas for Small Satellites	4	Reyhan Baktur, Utah State, & David Jackson, Univ. of Houston
8. Magnetic Resonance Imaging B/D/K	9	Branislav Notaros, Colorado State, Zoya Popovic, Univ. of Colorado, Erdem Topsakal, Virginia Com. Univ.

#### Commission B Special Sessions for the 2018 USNC-URSI National Radio Science Meeting, Boulder, Colorado – 10 Special Sessions

1.	Millimeter-Wave and 5G Antennas and Systems	Shubhendu Bhardwaj, Ohio State, & Manos Tentzeris, Georgia Tech
2.	Nonmagnetic and Nonreciprocal Devices	Ethan Wang, UCLA, & Andrea Alu, Univ. of Texas
3.	New CEM and HPC Approaches & Applications	Ali Yilmaz, Univ. of Texas, & Zhen Peng, Univ. of New Mexico
4.	Emerging Applications of Phased Arrays	Karl Warnick, BYU, & Elias Alwan, Ohio State
5.7	Adv. Theory & Applications of Metamaterials	Filippo Capolino, UC Irvine, & Ashwin Iyer, Univ. of Alberta
6.7	Adv. Analysis, Design,& Appl. of WG Structures	Michael Havrilla, Air Force Ins of Technology, & Edward Rothwell, Michigan State
7. '	Wearable Antennas and Electronics	Asimina Kiourti, Ohio State, & Bashir Morshed, Univ. of Memphis.
8.7	Antennas for Small Satellites	Reyhan Baktur, Utah State, & David Jackson, Univ. of Houston
9. 3	3D Printed Antennas	Jacob Adams, North Carolina State, & Hao Xin, Univ. of Arizona
10	. Techniques for Modeling of Waves in Plasmas	(BGH) Robert Marshall, U. of CO Boulder,

Robert Lysak, U. of Minnesota, Mark Golkowski, U. of CO Denver

# USNC/URSI Commission B Membership Committee

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

> Commission B Business Meeting San Diego, CA July 2017

# 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**

- For Full Membership:
  - Maria Z. A. Pour
    - 217C EB, 301 Sparkman Dr, Huntsville, AL, 35899
    - maria.pour@uah.edu (256) 824-5431
    - sponsor: Christos Christodoulou
  - Payam Nayeri
    - Colorado School of Mines, 1610 Illinois St., Golden, CO 80401
    - pnayeri@mines.edu (303) 273-3960
    - sponsor: Sembiam Rengarajan
  - Stavros Georgakopoulos
    - Florida International University, 10555 W. Flagler St., Engineering Center EC3900, Miami, FL 33174
    - georgako@fiu.edu (305) 348-1262
    - sponsor: John Volakis

# **Commission B Nominees**

#### For Early Career Membership:

- Marco David Poort
  - 851 S Morgan St, University of Illinois at Chicago
  - mpoort2@uic.edu (530) 220-3872
  - Sponsor: Piergiorgio Uslenghi
- Asimina Kiourti
  - ElectroScience Lab, 1330 Kinnear Rd, Columbus OH 43212
  - kiourti.1@osu.edu (614) 292-1627
  - sponsor: John Volakis
- Elias A. Alwan
  - ElectroScience Lab, 1330 Kinnear Rd, Columbus OH 43212
  - elias.alwan@gmail.com (614) 377-0198
  - sponsor: John Volakis

# Maria Pour

U.S. permanent resident

- Ph.D., 2012, University of Manitoba
- Professional experience
  - 2015-present: Assistant Professor, University of Alabama Huntsville
  - 2012-2015: Research Associate, University of Manitoba
  - Radio frequency design engineeer
- Research areas
  - Antenna theory, design, and analysis
  - Electrically large antennas and their primary feeds
  - Virtual aperture antennas
  - Adaptive and compact antennas for remote sensing applications
- Qualifications summary (Full Member)
  - Journal pubs: 15 (Radio Science, IEEE AP, AWPL, etc)
  - URSI-B presentations: 7
  - Participation in URSI:
    - AP/URSI 2010-2016, URSI EMTS 2013, URSI GASS 2014, NARSM Ottawa 2007, Session chair at 2014, 2016 AP/URSI, Reviewer for Radio Science

# Payam Nayeri

U.S. permanent resident

- Ph.D., 2012, University of Mississippi
- Professional experience
  - 2015-present: Assistant Professor, Colorado School of Mines
  - 2014-2015: Post-doctoral Fellow, Colorado School of Mines
  - 2012-2013: Post-doctoral Research Associate, University of Mississippi
- Research areas
  - Adaptive and multifunctional RF/microwave circuits and devices
  - Active and wideband beam-scanning antenna arrays
  - reflector and lens antennas, printed antennas antennas
- Qualifications summary (Full Member)
  - Journal pubs: 7 since 2013 (AP Trans, AP Magazine)
  - URSI-B presentations: 25
  - Participation in URSI:
    - 6 AP/URSI from 2009 to 2016, 5 URSI Boulder 2011-2017, AP/ URSI TPC member and session chair 2014

# Stavros Georgakopoulos

U.S. citizen

- Ph.D., 2001, Arizona State University
- Professional experience
  - 2014-present: Associate Professor, Florida International University
  - 2007-2014: Assistant Professor, Florida International University
  - 2010-2007: Principal Engineer, SV Microwave, Inc
- Research areas
  - Reconfigurable antennas
  - Wireless power transfer
  - Applied electromagnetics
  - Microwave components, circuits and interconnects
- Qualifications summary (Full Member)
  - Journal pubs: 22 (AP Trans, AP Magazine, AWPL, Tans. EMC, etc.)
  - URSI-B presentations: 3
  - Participation in URSI:
    - 9 AP/URSI from 1998 to 2016

# Marco Poort

U.S. citizen

- B.S., 2015, Cal State, Chico
- Professional experience
  - Ph.D. student at UI, Chicago expected graduation 2020

#### Research areas

- Electromagnetic scattering
- Qualifications summary (Early Career Member)
  - Journal pubs: 1 (Radio Science)
  - URSI-B presentations: 3
  - Participation in URSI:
    - 2016 Boulder meeting

# Elias Alwan

- Non-U.S. citizen, Non-PR
- Ph.D., 2014, Ohio State
- Professional experience
  - 2014-present: Senior Research Associate, ESL/OSU
  - Starting Fall 2018: Assistant Professor, Florida International University

#### Research areas

- Antennas and RF systems
- UWB communications systems
- mm-wave technologies for 5G
- Qualifications summary (Early Career Member)
  - Journal pubs: 8 (AWPL, MTT, IEEE Access)
  - URSI-B presentations: 4
  - Participation in URSI:
    - Boulder 2013, 2017 (Others?)

# Asimina Kiourti

- Non-U.S. citizen, Non-PR
- Ph.d., 2013, National Technical University of Athens, Greece
- Professional experience
  - 2016-present: Assistant Professor, Electroscience Laboratory, The Ohio State University
  - 2014-2016: Senior Research Associate, ESL/OSU
  - 2013-2014: Post-doc, ESL/OSU
- Research areas
  - Textile antennas
  - Antennas in biological systems
  - Biological sensors
- Qualifications summary (Early Career Member)
  - Journal pubs: 32 (Trans. AP, AWPL, Trans. Biomed, IEEE Sensors)
  - URSI-B presentations: 8
  - Participation in URSI:
    - AP/URSI (2011, 2012, 2014, 2017), URSI Boulder (2014,2016 organized two special sessions)

# Membership Committee Recommendations

The Committee unanimously recommends
 Election to full member for Maria Z. A. Pour
 Election to full member for Payam Nayeri
 Election to full member for Stavros Georgakopoulos
 Election to early career member for Marco David Poort
 Election to early career member for Elias A. Alwan
 Election to early career member for Asimina Kiourti

# Adam Mehrabani

- U.S. permanent resident
- Ph.D., 2015, University of Manitoba
- Professional experience
  - 2015-present: Post-doctoral Fellow, University of Manitoba
- Research areas
  - Antennas
  - Applied Electromagnetics
  - Microwave Components
- Qualifications summary (Full Member)
  - Journal pubs: 6 (MOTL, IET, AWPL)
  - URSI-B presentations: 6
  - Participation in URSI:
    - AP/URSI 2010-2016, ANTEM/CRSM 2009, URSI GASS 2008, Session chair at 2015AP/URSI