

## IEEE SPS SPCOM TC Chair's Report 2016

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This report summarizes the state of SPCOM TC and is provided to all members at the annual meeting at ICASSP.

### 1. Membership

At the end of 2015, the following members stepped down from the TC as their terms ended: Kaibin Huang, Shengli Zhou, Amir Leshem, Zhi Tian and Tim Davidson. On behalf of the whole TC, I thank them for their service. Especially, I warmly thank Tim for his mentorship and leadership of the committee.

The following members were re-elected to a second three-year term, 2016-2018: Michael Rabbat, Joakim Jalden, Min Dong.

Starting 2016, the following new members were elected: Waheed Bajwa, Wei Zhang, Eleftherios Karipidis and Markku Juntti.

Starting in 2016, former TC member Wei Yu was elected vice-chair. Wei serves 2016 as vice-chair, 2017-2018 as chair, and 2019 as past-chair.

### 2. Subcommittees

The TC has the following subcommittees:

a) Nominations and elections subcommittee: David Love (chair), Wolfgang Utschick and Milica Stojanovic

b) Awards subcommittee: Erik G. Larsson (chair), Wei Yu and Matthew McKay

c) Marconi award subcommittee: Matthew McKay (chair), Shi Jin, Rui Zhang, Cihan Tepedelenlioglu, Yindi Jing and Wei Yu

d) Industry/government subcommittee: Pengfei Xia (chair), Eleftherios Karipidis, Ahmed Sadek

e) Newsletter subcommittee: Chandra Murthy

f) Education subcommittee: Markku Juntti (chair), Alejandro Ribeiro and Feifei Gao

g) Geographical representatives: Michael Rabbat (Canada), Phillipe Ciblat (Europe), Rui Zhang (Asia Pacific), Weifeng Su (USA)

Our IEEE SPS visibility representative is Waheed U. Bajwa

### 3. TC representation on IEEE boards

The following TC members act as representatives on other IEEE boards:

1. IEEE SPS Technical Directions board (E.G. Larsson)

2. Steering committee of the IEEE Trans. Wireless Comm. (U. Mitra)

3. Editor-in-Chief of the IEEE Wireless Comm. Letters (W. Zhang)

### 4. Congratulations to SPCOM TC members, for winning awards:

**Ken Ma**, for winning the SP Magazine best paper award: Zhi-Quan Luo, Wing-Kin Ma, Anthony

Man-Cho So, Yinyu Ye and Shuzhong Zhang, for "Semidefinite Relaxation of Quadratic Optimization Problems", IEEE Signal Processing Magazine, Volume 27, No.3, May 2010.

**David Love**, for winning the best paper award: Junil Choi, David J. Love and Patrick Bidigare, "Downlink Training Techniques for FDD Massive MIMO Systems: Open-Loop and Closed-Loop Training With Memory", IEEE Journal of Selected Topics in Signal Processing, Volume 8, No. 5, October 2014.

5. Outcome of the TC's nominations for Society's Paper Awards made in 2015

Jason T. Parker, Philip Schniter and Volkan Cevher, *Bilinear Generalized Approximate Message Passing — Part I: Derivation, Part II: Applications*, IEEE Transactions on Signal Processing, for the 2015 IEEE SPS Best Paper Award. Not successful.

Gesualdo Scutari, Francisco Facchinei, Peiran Song, Daniel P. Palomar, and Jong-Shi Pang, *Decomposition by Partial Linearization: Parallel Optimization of Multi-Agent Systems*, IEEE Transactions on Signal Processing, for the 2015 IEEE SPS Young Author Best Paper Award. **Successful.**

Beibei Wang and K. J. Ray Liu, *Advances in Cognitive Radio Networks: A survey*, for the 2015 IEEE SPS Overview Paper Award. **Successful.**

A. B. Gershman, N. D. Sidiropoulos, S. Shahbazpanahi, M. Bengtsson, and B. Ottersten, *Convex Optimization-based Beamforming*, for the 2015 IEEE SPS Magazine Best Paper Award. Not successful.

6. The nomination of John M. Cioffi for the 2015 IEEE SPS Industrial Leader Award was not successful.

7. The nomination of Zhi-Quan (Tom) Luo for the Technical Achievement Award was not successful.

8. Summary of recent years ICASSP papers submissions to SPCOM:

ICASSP 2012 (Kyoto):	115 accepted out of 218 submitted
ICASSP 2013 (Vancouver):	205 accepted out of 387 submitted + 5 SPL papers
ICASSP 2014 (Florence):	187 accepted out of 391 submitted + 12 SPL papers
ICASSP 2015 (Brisbane):	75 accepted out of 153 submitted + 14 SPL papers
ICASSP 2016 (Shanghai):	116 accepted out of 240 submitted + 9 SPL papers

The percentage of total submissions that were submitted to the SPCOMN track:

2012:	$218/2615 = 8.3\%$
2013:	$387/3346 = 11.6\%$
2014:	$391/3544 = 11.0\%$
2015:	$153/2240 = 6.8\%$
2016:	$234/2595 = 9.0\%$

9. SPAWC statistics from recent years:

SPAWC 2012:	119 accepted out of 171 submitted; 124 attendees
SPAWC 2013:	158 accepted out of 237 submitted; 184 attendees
SPAWC 2014:	102 accepted out of 121 submitted; 132 attendees
SPAWC 2015:	140 accepted out of 207 submissions; 178 attendees
SPAWC 2016:	250+ submissions of which some 90 are special session papers (preliminary info.)

10. Statistics of GlobalSIP symposia in SPCOM areas:

GlobalSIP 2013: 5 SPCOM of 18 in total  
GlobalSIP 2014: 6 SPCOM of 13 in total  
GlobalSIP 2015: 3 symposia (#7, #8, #12) with clear connection to SPCOM core topics  
GlobalSIP 2016: M. Rabbat co-organizing symposium on SP Over Networks; any additional?

#### 11. TC review 2015

A TC review took place at ICASSP 2015. The following TC representatives were present: E.G. Larsson, T. Davidson and J. Jalden. The review was successful and only minor comments were received. The TC review report is attached to this chair's report.

#### 12. Summary of tasks ahead and known hard deadlines

February 15, 2016: Nominations for the Marconi award (passed, no submission this year)  
Responsible: Marconi subcommittee

May 31, 2016: Nominations for distinguished lecturers  
Responsible: TC chair

September 1, 2016: Nominations for BPA, YABPA, MBPA, LBPA, OBPA and TA  
Responsible: TC vice-chair

November 15, 2016: Membership election completed  
Responsible: Elections and nominations subcommittee