

**IEEE SPS SPCOM Technical Committee Meeting
at ICASSP, New Orleans, USA, March 6, 2017**

Meeting minutes

Approved by the TC in June

Attending TC members: Wei Yu (chair), Erik G. Larsson (past chair), Tareq Al-Naffouri, Emil Björnson, Laura Cottatellucci, Feifei Gao, Mingyi Hong, Shi Jin, Eleftherios Karipidis, Wing-Kin Ma, Michael Rabbat, Vasanthan Raghavan, Byonghyo Shim, Christoph Studer, Alejandro Ribeiro (parts)

TC members with formal apologies: Biao Chen, Philippe Ciblat, Bruno Clerckx, Min Dong, Chandra Murthy, Joakim Jalden, Markku Juntti, Tony Quek, Waheed Bajwa, Urbashi Mitra, Yindi Jing, Mathini Sellathurai, Osvaldo Simeone, Wei Zhang

TC members not attending: Rui Zhang

Non-TC members attending: George Sklivanitis (parts), Athina Petropulu (parts), Geoffrey Li (parts), Zhengdao Wang (parts), Wei Yu (Towson Univ. parts)

Minutes written by Erik G. Larsson.

1. It was determined that quorum was not present.
2. Wei Yu summarized the status of the TC and its activities.
 - a. Update on membership:
 - i. A vote of thanks was given to the ten members who retired from service at the end of 2016: Chong-Yung Chi, David Love, Matthew McKay, Ahmed Sadek, Milica Stojanovic, Weifeng Su, Cihan Tepedelenlioglu, Wolfgang Utschick, Sergiy Vorobyov, and Pengfei Xia.
 - ii. Wei Yu welcomed the ten new members Tony Quek, Bruno Clerckx, Emil Björnson, Christoph Studer, Laura Cottatellucci, Osvaldo Simeone, Mingyi Hong, Vasanth Raghavan, Byonghyo Shim, and Tareq Al-Naffouri, who all started in January 2017.
 - iii. The following six members were re-elected for a second three-year term: Biao Chen, Chandra Murthy, Mathini Sellathurai, Philippe Ciblat, Shi Jin, and Feifei Gao.
 - iv. The TC has 5 female members, and 2 industry members. 12 are based in North America, 9 Europe, 1 Middle East, and 8 in Asia Pacific.
 - b. Wei Yu presented the new subcommittee structure, effective from January 2017:
 - i. Nominations and elections subcommittee: Joakim Jalden (chair), Min Dong, Wei Zhang
 - ii. Awards subcommittee: Erik G. Larsson (chair), Wei Yu, Biao Chen, Urbashi Mitra

- iii. Marconi award subcommittee: Rui Zhang (chair), Bruno Clerckx, Yindi Jing, Shi Jin
- iv. Industry/government subcommittee: Eleftherios Karipidis (chair), and Raghavan Vasanth
- v. Newsletter subcommittee: Chandra Murthy (chair), and Waheed U. Bajwa (IEEE SPS visibility representative)
- vi. Education subcommittee: Markku Juntti
- vii. Geographical representatives: Michael Rabbat (Canada), Phillippe Ciblat (Europe), Tony Quek (AsiaPacific), Christoph Studer (USA)

[As Update after the TC meeting: The subcommittees have since been restructured as follows:

- i. Nominations and elections subcommittee: Erik G. Larsson (chair), Urbashi Mitra, and Wei Zhang;
 - ii. Awards subcommittee: Joakim Jalden (chair), Wei Yu, Min Dong, and Biao Chen
 - iii. Education subcommittee: Markku Juntti (chair), Emil Björnson and Christoph Studer]
- c. TC representation on IEEE boards:
- i. IEEE SPS Technical Directions board (W. Yu)
 - ii. IEEE SPS Awards Board (U. Mitra and E. G. Larsson)
 - iii. Steering committee of IEEE Trans. Wireless Comm. (U. Mitra)
 - iv. Editor-in-Chief of IEEE Wireless Comm. Letters (W. Zhang)
- d. Congratulations to Award winners, current and past TC members:
- i. IEEE SIGNAL PROCESSING SOCIETY TECHNICAL ACHIEVEMENT AWARD: **Bhaskar D. Rao**, "for fundamental contributions to array processing and sparsity-based signal processing."
 - ii. IEEE SIGNAL PROCESSING SOCIETY BEST PAPER AWARD: Chin Keong Ho and **Rui Zhang**, for "Optimal Energy Allocation for Wireless Communications with Energy Harvesting Constraints", *IEEE Transactions on Signal Processing*, Volume 60, No. 9, Sept. 2012.
 - iii. IEEE SIGNAL PROCESSING LETTERS BEST PAPER AWARD: Ye Yang, Qiang Li, **Wing-Kin Ma**, Jianhua Ge and P.C. Ching, for "Cooperative Secure Beamforming for AF Relay Networks ...", *IEEE Signal Processing Letters*, Volume 20, No. 1, January 2013.
 - iv. TC members elevated to IEEE fellow: **Wing-Kin Ma, Rui Zhang**
- e. **Successful** award and DL nominations from SPCOM TC 2016:
- i. 2016 IEEE SPS Best Paper Award: "Bilinear Generalized Approximate Message Passing — Part I: Derivation; Part II: Applications" by Jason T. Parker, Philip Schniter and Volkan Cevhe, *IEEE Transactions on Signal Processing*, Volume 62, No. 22, November 2014.
 - ii. 2016 IEEE SPS Young Author Best Paper Award: Jack Ho, for the paper co-authored with Wee Peng Tay, Tony Q. S. Quek and Edwin K. P. Chong, "Robust Decentralized Detection and Social Learning in

Tandem Networks”, *IEEE Transactions on Signal Processing*, Volume 63, No. 19, October 2015.

iii. IEEE SPS Distinguished Lecturer: Athina Petropulu

f. **Unsuccessful** award nominations from the SPCOM TC 2016:

- i. 2016 IEEE SPS Technical Achievement Award: Zhi-Quan (Tom) Luo
- ii. 2016 IEEE SPS Society Award: Georgios B. Giannakis
- iii. 2016 IEEE SPS Industrial Leader Award: John M. Cioffi
- iv. 2016 IEEE SPS Magazine Best Paper Award: “*Convex Optimization-based Beamforming*”, A. B. Gershman, N. D. Sidiropoulos, S. Shahbazpanahi, M. Bengtsson, and B. Ottersten
- v. 2016 IEEE SPS Magazine Best Column Award: “*Optimal Multiuser Transmit Beamforming: A Difficult Problem with a Simple Solution Structure*” by Emil Björnson, Mats Bengtsson, and Björn Ottersten

g. ICASSP statistics:

ICASSP 2012 (Kyoto)	115 accepted out of 218 submitted	8.3% of ICASSP
ICASSP 2014 (Florence)	205 accepted out of 387 submitted + 5 SPL papers	11.6% of ICASSP
ICASSP 2013 (Vancouver)	187 accepted out of 391 submitted + 12 SPL papers	11.0% of ICASSP
ICASSP 2015 (Brisbane)	75 accepted out of 153 submitted + 14 SPL papers	6.8% of ICASSP
ICASSP 2016 (Shanghai)	116 accepted out of 240 submitted + 9 SPL papers	9.0% of ICASSP
ICASSP 2017 (New Orleans)	72 accepted out of 146 submitted + 4 SPL papers	5.8% of ICASSP

Wei Yu raised a question on how more communication papers may be attracted to ICASSP. The submission of special session proposals was encouraged. Erik G. Larsson remarked that there have been fluctuations over the years and that the SPCOM track is still of substantial size compared to some other tracks. There was a brief discussion on the timing of ICASSP, and the competition from ComSoc conferences.

h. SPAWC statistics:

SPAWC 2012 (Cesme, Turkey)	119 accepted out of 171 submitted	124 attendees
SPAWC 2013 (Darmstadt, Germany)	158 accepted out of 237 submitted	184 attendees
SPAWC 2014 (Toronto, Canada)	102 accepted out of 121 submitted	132 attendees
SPAWC 2015 (Stockholm, Sweden)	140 accepted out of 207 submitted	178 attendees
SPAWC 2016 (Edinburgh, UK)	173 accepted out of 260 submitted	210 attendees
SPAWC 2017 (Sapporo, Japan)	100 submissions as of March 6, among which 72 are regular submissions, 28 invited. There are a total of 90 invited papers. Extended Deadline: March 10, 2017	??

There was a discussion of the variability of the numbers.

Financial results have been as follows:

2015: Surplus of \$27K out of \$68K expenses (28% surplus)

2016: Surplus of £14K out of £67K expenses (17.5% surplus)

i. GlobalSIP participation by the TC:

- GlobalSIP 2013: 5 SPCOM symposia out of 18 in total
- GlobalSIP 2014: 6 SPCOM symposia out of 13 in total
- GlobalSIP 2015: 3 symposia (#7, #8, #12) with clear connection to SPCOM
- GlobalSIP 2016:
 - M. Rabbat co-organized a symposium on SP Over Networks
 - Z.-Q. Luo and M. Hong co-organized a symposium on Distributed Information Processing, Optimization and Resource Allocation over Networks
 - M. Juntti co-organized a symposium on Transceivers and SP for 5G and mmWave.
 - SPCOM related symposia on Info Theoretic Security (Schaefer, Boche), Cognitive Radio (Poor)
- GlobalSIP 2017:
 - Z.-Q. Luo and M. Hong are co-organizing a symposium on Distributed Optimization and Resource Allocation over Networks
 - M. Rabbat is co-organizing a symposium on Graph Signal Processing
 - SPCOM related symposium on Full-duplex (Gross)

3. Wei Yu presented tasks and action items ahead:

- February 15, 2017:
 - Nominations for the Marconi award (passed, no submission this year)
- May 31, 2017:
 - Nominations for Distinguished Lecturers
 - Responsible: TC chair, Awards subcommittee
- September 1, 2017:
 - Nominations for BPA, YABPA, MBPA, LBPA, OPA, SIPA and TA
 - Responsible: TC past-chair, Awards subcommittee
- November 15, 2017:
 - Vice-Chair and Membership election completed
 - Responsible: Elections and nominations subcommittee
- February 15, 2018:
 - Nominations for the Marconi award
 - Responsible: Marconi subcommittee

There was a discussion of the review load for ICASSP and SPAWC, and the use of external reviewers. Erik Larsson stated that for ICASSP 2017, 108 reviewers were enlisted (including the 30 elected TC members). Those reviewers who are not elected members were carefully handpicked.

4. Wei Yu gave an update on SPAWC 2017. The conference has acquired sponsorship from foundations, 20 kUSD in total. Registration fees will be low. There will be 16 special sessions.

[As Update after the TC meeting: SPS member registration for SPAWC 2017 is about USD\$550. The actual number of special session is 15.]

5. Athina Petropulu gave an update on SPAWC 2018. The registration fees will be low, and the accommodation inexpensive. There was a short discussion on the reachability of the location. The answer was that Kalamata reachable by major airlines, it is a major tourist destination in Europe.

6. Three preproposals were presented for SPAWC 2019:
 - a. Geoffrey Li presented a preproposal for SPAWC in Atlanta (encl. 6a). Wei Yu raised a question on the dates. The answer was that dates are flexible, not decided yet. Mid-July was suggested, but June is also, probably a better option. Michael Rabbat asked about the weather. The answer was that it is quite good, not too humid.
 - b. Laura Cottatellucci presented a preproposal for SPAWC in Cannes (encl. 6b). There was a discussion of the costs. The answer was that the economy in the area has gone down, but its development depends on the political situation and more. There was a discussion of dates. It will make sense to coordinate with ISIT 2019, which will be in Paris, July 7-14. Wei Yu reminded the proposers that the full proposal should include a budget.
 - c. Wei Yu recapitulated the proposal for SPAWC in Bangalore that was presented in 2016 (encl. 6c). There was a discussion on the registration fees and the tutorial fee specifically, as they seemed high.
[As update after the TC meeting, the Bangalore team has since withdrawn its proposal.]

Full proposals have been solicited with a deadline of June 1. A vote will follow shortly after that. Consistent with the TCs P&P, this voting will take place over email.

Some other conferences to keep in mind when making decisions on the date are:

- ICASSP 2019: May 12-17, Brighton, UK
- ICC 2019: May 20-24, Shanghai, China
- ISIT 2019: July 7-14, Paris, France

7. Wei Yu explained that the chairs wish to make minor changes to the policies and procedures (encl. 7) and explained the rationale behind these changes. Michael Rabbat raised a question regarding the formulation of one sentence. A discussion followed. All should review and send any comments to the chairs, so that the changes can be approved in the next meeting.
8. Erik Larsson led a short discussion on the SPCOM video. The status is that a working group consisting of Chandra Murthy, Joakim Jalden and Erik Larsson has been formed and its members have some ideas for themes that the video contain:
 1. 5G and Massive MIMO (Erik)
 2. Sparse signal recovery (Chandra)
 3. Tracking of objects in sensor networks and particles in biology applications (Joakim)

The work with the video will resume during 2017.

9. Erik Larsson shared some thoughts about how the voting processes currently used by the TC could be improved. There are, at least, three aspects:
 - a. The use of a web-based service instead of emails would be preferable to reduce the TC chair/subcommittee workload
 - b. The use of better voting scheme (preferential voting) could facilitate more efficient and "fair" one-round schemes. The main motivation is that there have been surprisingly many ties and close-ties in the past. Efficiency (fewer rounds) is also an aspect.
 - c. There have been concerns with the email voting in the past and the fact that the chairs see the email votes, which could bias how members vote.

Erik Larsson expressed that

a) In principle could be addressed by the use of FluidSurveys (IEEES officially sanctioned tool), however, it does not seem user friendly. Moreover FluidSurveys would be discontinued. Other tools may exist. The chairs will check. An alternative could be to delegate more of this work to subcommittees.

b) Would be rather straightforward in principle, but may require the use of software tools.

c) This problem is obviously avoided when using a secret ballot in a face to face meeting. For electronic voting, it may be good enough to use an external trusted party/server. (There do exist also cryptographic protocols that, jointly, guarantee universal verifiability and voter privacy but those are not very user friendly - in use, however, by IACR among others.)