

# SAM TC Meeting @ CAMSAP 2017

**Martin Haardt**

**Monday, December 11, 2017**

**1:30 PM – 3:00 PM**

**Curacao, Dutch Antilles,  
Santa Barbara Beach and Golf Resort**

# Agenda

- Welcome of new TC members
- Report from Chair
  - ⇒ Awards
  - ⇒ ICASSP 2018 submissions
  - ⇒ TC status
  - ⇒ Archiving initiative
  - ⇒ SAM TC Review 2017
- Workshop Reports
  - ⇒ CAMSAP 2017 (André de Almeida)
  - ⇒ SAM 2018 (Peter Willett)
- Proposal for CAMSAP 2019
  - ⇒ Guadeloupe  
(Jean-Yves Tourneret, David Brie,  
Cédric Richard)
- Subcommittee Reports
- Interactions with AASP-TC
- Discussion topics
  - ⇒ Other topics?
- End

# SAM Membership 2017

## New Members

- ❑ Pascal Chevalier  
(CNAM & Thales, France)
- ❑ Lei Huang  
(College of Information Engineering, China)
- ❑ Yongwei Huang  
(Guangdong University of Technology, China)
- ❑ Wei Liu  
(University of Sheffield, UK)
- ❑ Vincenzo Matta  
(University of Salerno, Italy)
- ❑ Karim Abed Meraim  
(Université d'Orléans/ Polytech Orléans, PRISME Lab, France)
- ❑ Antonio Napolitano  
(University of Napoli, Italy)



## Retiring Members

- ❑ Antonio De Maio
- ❑ Jean-Pierre Delmas
- ❑ Shawn Kraut
- ❑ Pascal Larzabal
- ❑ Ali H. Sayed
- ❑ Erchin Serpedin

## Returning Members

- ❑ Mónica Bugallo
- ❑ Yonina Eldar
- ❑ Braham Himed
- ❑ Jian Li
- ❑ Chong Meng Samson See
- ❑ Milica Stojanovic

## Statistics

- ❑ 8 female, 33 male
- ❑ 14 R1-6, 1 R7, 17 R8, 1 R9, 8 R10
- ❑ 6 Industry/Lab, 35 Academic

# SAM Membership 2018

## New Members

- Angela Alexiou  
(University of Piraeus, Greece)
- Alexander Bertrand  
(KU Leuven, Belgium)
- Nuria González Prelcic  
(University of Vigo, Spain)
- Jarvis Haupt  
(University of Minnesota,  
Minneapolis)
- Gonzalo Seco-Granados  
(Universitat Autònoma de  
Barcelona, Spain)
- Birsen Yazici  
(Rensselaer Polytechnic  
Institute, NY)



## Retiring Members

- Volkan Cevher
- Mounir Ghogho
- Geert Leus
- Marius Pesavento
- Athina Petropulu
- Peter Willett (Past Chair)

## Returning Members

- Yimin Daniel Zhang
- Fulvio Gini
- Eduard Jorswieck
- Frederic Pascal
- Brian Sadler
- Ba-Ngu Vo

## Statistics

- 10 female, 31 male
- 14 R1-6, 1 R7, 16 R8, 1 R9, 8 R10
- 9 Industry/Lab, 32 Academic

# 2016 SAM Awards (1)

- **Young Author Best Paper Award:**

- ⇒ Ahmed Alkhateeb and Omar El Ayach, for the paper co-authored with Geert Leus and Robert W. Heath, Jr., for „Channel Estimation and Hybrid Precoding for Millimeter Wave Cellular Systems“, *IEEE Journal of Selected Topics in Signal Processing*, Volume 8, No. 5, October 2014.

- **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 With Multiple Eavesdroppers“, *IEEE Signal Processing Letters*, Volume 20, No. 1, January 2013.

# 2016 SAM Awards (2)

- **Signal Processing Magazine Best Paper Award:**
  - ⇒ David I. Shuman, Sunil K. Narang, Pascal Frossard, Antonio Ortega and Pierre Vandergheynst, for “The Emerging Field of Signal Processing on Graphs [Extending high-dimensional data analysis to networks and other irregular domains]“, *IEEE Signal Processing Magazine*, Volume 30, No. 3, May 2013.
  
- **Technical Achievement Award:**
  - ⇒ Jelena Kovacevic, “for contributions to the theory and practice of signal representations.”

# 2017 Distinguished Lecturers of the IEEE SPS and their Topics

## □ Athena P. Petropulu

- ⇒ Sparse Sensing Based MIMO Radars
- ⇒ Coexistence of Radar and Communication Systems
- ⇒ Cooperative Approaches For Physical Layer Security
- ⇒ Cooperative Approaches For Improving The Performance of Wireless Networks
- ⇒ Mobile Beamforming
- ⇒ Localization of Brain Activations Based on EEG Recordings and Sparse Signal Recovery Theory

## □ Brian M. Sadler

- ⇒ Distributed Collaborative Intelligent Systems
- ⇒ Human-Autonomy Querying and Interaction
- ⇒ Autonomous Networking

# History of ICASSP SAM Submissions

- Annual figures for SAM submissions as a fraction of total ICASSP submissions:
  - ⇒ 2018: 147 / 2738 = 5.4 %      Calgary, Canada
  - ⇒ 2017: 170 / 2697 = 6.3 %      New Orleans, USA
  - ⇒ 2016: 200 / 2682 = 7.5 %      Shanghai, China
  - ⇒ 2015: 212 / 2322 = 9.1 %      Brisbane, Australia
  - ⇒ 2014: 222 / 3544 = 6.3 %      Florence, Italy
  - ⇒ 2013: 216 / 3362 = 6.4 %      Vancouver, Canada
  - ⇒ 2012: 171 / 2615 = 6.5 %      Kyoto, Japan
- SAM was unusually high in Brisbane (ICASSP 2015), perhaps due to the concentration of SAM surveillance topics in Australia



# Initiatives

## □ Archiving of SAM Workshop Websites

- ⇒ Responsible: Waheed U. Bajwa
- ⇒ Past workshops are often housed on University servers, and eventually are removed.
- ⇒ Lost TC memory (and memories).
- ⇒ IEEE is willing to house them, link from web page.
- ⇒ Presently the following workshops have been archived:
  - SAM 2016
  - CAMSAP 2015
  - SAM 2014
  - CAMSAP 2013
  - CAMSAP 2011
  - SAM 2010
  - CAMSAP 2009
  - CAMSAP 2007
  - CAMSAP 2005
  - SAM 2002
- ⇒ Still missing are: SAM 2012, SAM 2008, SAM 2006, and SAM 2004

## □ SAM TC Review on March 9, 2017 at 14:00.

# Feedback from the SAM TC Review 2017

## M. REVIEW COMMITTEE REMARKS REGARDING THE TC.

- The SAM TC has solid plans to achieve its goals and broaden its visibility, diversity, and impact.

# Feedback from the SAM TC Review 2017

## M. REVIEW COMMITTEE REMARKS REGARDING THE TC.

- SAM TC has created a YouTube channel to archive lectures given at its workshops/conferences  
(after obtaining permissions from the speakers)
  - ⇒ Waheed U. Bajwa
- We start the video recordings with the CAMSAP 2017 plenary lectures
- We need to consult with the IEEE SPS Conference Board to obtain SPS permission.
  - ⇒ The IEEE SPS has its own resource center and might want to only put select lectures on YouTube and others on the resource center.

# Feedback from the SAM TC Review 2017

## K. Comments on Strengths and Weaknesses

### □ Membership Diversity:

⇒ gender diversity: good

⇒ regional diversity: good

⇒ low number of members from industry and government labs.

⇒ should be discussed in the Industry/Government Subcommittee

# Feedback from the SAM TC Review 2017

## K. Comments on Strengths and Weaknesses

- SAM TC Signal Processing Student Cup Proposal 2018:  
“Signal Processing for Cracking Cryptographic Algorithms”
  - ⇒ by *Yi Han, Saman Zonouz, Athina Petropulu*
  - ⇒ unfortunately not (yet) successful
  - ⇒ new proposal should be discussed in the Technical Directions Subcommittee for 2019
  
- We would like to increase the pool of student affiliate members and increase their participation in the TC activities.
  - ⇒ should be discussed in the Students Subcommittee

# Feedback from the SAM TC Review 2017

## K. Comments on Strengths and Weaknesses

- ❑ Jobs Marketplace. SAM TC has relatively few postings in the Job Marketplace.
- ❑ We expect the number of postings will improve as the number of members from industry increases.
  - ⇒ should be discussed in the Industry/Government Subcommittee
- ❑ Further ideas?

# Feedback from the SAM TC Review 2017

## K. Comments on Strengths and Weaknesses

- ❑ We feel that SAM-TC communicates effectively with its membership through its well-maintained website and its numerous meetings.
- ❑ Nonetheless, it needs to reach out more regularly to SPS membership through its Newsletter. This requires attention by the Chair, the Vice-Chair, and the Newsletter subcommittee.

# SAM Workshops

## □ CAMSAP 2017

⇒ preliminary report on an excellent workshop in Curacao,  
Dutch Antilles

## □ SAM 2018

⇒ preliminary report on a will-be-excellent workshop in Sheffield,  
U.K.

## □ CAMSAP 2019

⇒ proposal to host the workshop in Guadeloupe,  
French West Indies



# Subcommittees 2017

- ❑ **Technical Directions** (Athina Petropulu, Jian Li, Kainam Thomas Wong, Peter Willett)
- ❑ **Awards** (Geert Leus, Yonina Eldar, Antonio Napolitano, Lei Huang)
- ❑ **Nominations and Elections** (Fulvio Gini, Eduard Jorswieck, Yimin Zhang, Vincenzo Matta)
- ❑ **Workshops** (Mónica Bugallo, André L. F. de Almeida, Wei Liu, Karim Abed-Meraim)
- ❑ **Webmaster** (Waheed U. Bajwa, Mounir Ghogho)
- ❑ **Newsletter** (Marius Pesavento, Christoph Mecklenbräuker, Hongbin Li)
- ❑ **Membership** (Piya Pal, Yongwei Huang)
- ❑ **Industry/Government** (Braham Himed, Chong Meng Samson-See, Pascal Chevalier)
- ❑ **Education** (Ami Wiesel, Milica Stojanovic, Ba-Ngu Vo)
- ❑ **Student** (Sher Ali Cheema, Philip Schniter)

(underline means chair)

# Subcommittees 2017

## Area Chairs

- ❑ Applications of SAM processing
- ❑ Beamforming and space-time processing
- ❑ Detection, estimation, and source separation
- ❑ Multi-antenna and multi-channel comm.
- ❑ Radar array processing
- ❑ Sensor array processing
- ❑ Sensor networks

Brian Sadler  
Martin Haardt  
Volkan Cevher  
Chong-Yung Chi  
Fauzia Ahmad  
Xavier Mestre  
Ashish Pandharipande

## Four Regional Representatives

- ❑ 1. USA (1-6)
- ❑ 2. Canada/Latin America (7/9)
- ❑ 3. Europe/Mid East/Africa (8)
- ❑ 4. Asia/Pacific (10)

Gonzalo Mateos  
Jacob Benesty  
Frederic Pascal  
Qian He

# Interaction with AASP-TC (1)

- Requested by AASP due to some commonality in interests, especially in microphone array topical area.
- IEEE SPS does encourage cooperation among its TCs.
- **Near-term start**
  - ⇒ SAM and AASP have organized a special session on “Speaker Localization in Dynamic Real-Life Environments” at ICASSP 2017 ...
- **Medium-term initiatives**
  - ⇒ SAM may co-sponsor HSCMA (Hands-Free Communication and Microphone Arrays) Workshop
    - Workshop is every 3 years
    - the last one just before ICASSP 2017 in San Francisco, CA
    - not financially sponsored by IEEE
  - ⇒ Special issue in the IEEE Journal of Selected Topics in Signal Processing
- **Long-term thoughts**
  - ⇒ AASP might be interested in co-sponsorship of SAM
  - ⇒ Create some joint EDICs ???

# Interaction with AASP-TC (2)

- ❑ **Special issue** in the *IEEE Journal of Selected Topics in Signal Processing*
- ❑ Proposed topic
  - ⇒ Acoustic source localization and tracking in dynamic real-life scenes
- ❑ Proposed guest editors
  - ⇒ Sharon Gannot, Bar-Ilan University, Israel
  - ⇒ Martin Haardt, Technische Universität Ilmenau, Germany
  - ⇒ Walter Kellermann, Friedrich-Alexander Universität Erlangen-Nürnberg, Germany
  - ⇒ Peter Willett, University Of Connecticut, USA
- ❑ Proposed submission date
  - ⇒ March 1, 2018