

Sensor Array and Multichannel Technical Committee Newsletter

December 2010
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SAM TC Chair
Kristine Bell

SAM TC Vice-Chair
Mats Viberg

Newsletter Editor
Marco Lops

Links

- [SAM TC](#)
 - [Management and Membership](#)
 - [Affiliate Members](#)
 - [Conferences](#)
 - [SAM 2010](#)
 - [CAMSAP 2011](#)
- [SPS](#)
 - [P&P](#)
 - [Distinguished Lecturers](#)
 - [Awards](#)
- [IEEE](#)
 - [Fellows](#)

Contents

Message from the Chair	1
Committees	2
Elections	2
Distinguished Lecturers and Fellows	2
Workshops	2
Calendar	3
Calls for Papers/Proposals	3
Calls for Nominations	3
About the SAM TC	3

Message from the Chair

As my term as SAM TC chair comes to a close, I would like to take a moment to express my gratitude to the SAM TC and SPS volunteer community and IEEE staff for having the opportunity to work with you for the benefit of the SPS. It's been a very rewarding experience.

The SAM TC is in excellent hands with incoming Chair Mats Viberg and Vice-Chair Dominic Ho. They have already taken over many of the Chair's responsibilities, including the ICASSP 2011 paper review and preparation process. I'm looking forward to serving my final year on the SAM TC as Past-Chair under their capable leadership.

In the last few years, the SAM TC has seen quite a few procedural and administrative changes that have been motivated by practices of other TCs such as SPCOM and SPTM, as well as the new SPS Policies and Procedures.

The biggest change has been the SPS paper award nomination process. Prior to 2008, we took nominations from TC members, then voted to select a single nomination in each category. In 2008, we began a more formal process. Now all TC members are organized into Area Committees that evaluate a comprehensive set of papers in their area to come up with the best nominations. Multiple rounds of voting across the whole TC are then used to select the final nominations.

Another significant change has been forming committees to conduct TC business. In particular, the new Nominations & Elections and Awards committees were both very effective this year.

We have also developed more formal and uniform documentation of our operation including compiling a TC Review report in 2009, keeping meeting minutes, developing this newsletter, developing member nomination forms, and integrating our website into the SPS website.

I believe all of these changes have solidified and improved the way we function without detracting from the things we have always done well. The SAM TC continues to have outstanding workshops including the SAM workshop and the CAMSAP workshop, and ICASSP submissions in the SAM area have remained strong. We have an excellent record of providing successful nominations for SPS Awards and Paper Awards, Distinguished Lecturers, and Fellows. Many of our TC members serve on the editorial boards of SPS publications and as organizers of special issues in JSTSP. We are also active in organizing special sessions, tutorials, and plenary talks at conferences. I believe the SAM TC is well poised to continue this tradition of excellence in service to SPS.

Best wishes for a Happy New Year!

Committees

Awards

Dominic Ho, Chair
Fulvio Gini
Brian Sadler

Nominations and Elections

Olivier Besson, Chair
Biao Chen
Aleksandar Dogandzic

Technical Directions

Rick Blum, Chair
Erik Larsson
Mats Viberg

Workshops

Arye Nehorai, Chair
Ananthram Swami
Joseph Tabrikian
Sergiy Vorobyov

Newsletter

Marco Lops, Chair
Kristine Bell

Webmaster

Peter Willett, Chair
Alle-Jan van der Veen

Membership

Dan Fuhrmann, Chair
Abdelhak Zoubir

Industry/Government

Raghuveer Rao, Chair
Muralidhar Rangaswamy

Education

Maria Sabrina Greco, Chair
Randy Moses

Area Chairs

Sensor Array Processing

Hongbin Li

Beamforming and Space-Time Adaptive Processing

Jian Li

Multi-Antenna and Multi-Channel Communications

Visa Koivunen

Detection, Estimation, and Source Separation

Lee Swindlehurst

Sensor Networks

Yingbo Hua

Applications of SAM Processing

Steven Smith

Regional Reps

1-6: USA

Lang Tong

7/9: Canada/Latin America

Shahram Shahbazpanahi

8: Europe/Mid-East/Africa

Andreas Jakobsson

10: Asia/Pacific

Yuri Abramovich

Elections 2010

In September 2010, the SAM TC elected Dominic Ho to serve as the new Vice-Chair. He will serve as Vice-Chair in 2011-12, then succeed to Chair in 2013-14, and serve as Past Chair in 2015.

In November 2010, thirteen TC members were elected for 3-year terms running from 2011-2014. Five current TC members were elected for a second term. They are Andreas Jakobsson, Randy Moses, Arye Nehorai, Shahram

Shahbazpanahi, and Ananthram Swami. The eight new members include Jean-Pierre Delmas, Antonio De Maio, Martin Haardt, Shawn Kraut, Pascal Larzabal, Christoph Mecklenbrauker, Ali Sayed, and Erchin Serpedin.

The TC wishes to thank retiring members Dan Fuhrmann, Fulvio Gini, Jian Li, Murali Rangaswamy, Raghuveer Rao, Lang Tong, and Alle-Jan van der Veen for their many years of service.

Distinguished Lecturer and Fellows

The SAM TC successfully nominated TC member Rick Blum as a Distinguished Lecturer for 2011-2012 to lecture on communications and signal processing for sensor networks and distributed radar networks.

Congratulations to SAM TC members Maria Sabrina Greco and Visa Koivunen, who were elevated to IEEE Fellow for 2011.

Workshops

In October 2010, the SAM TC sponsored the 6th IEEE Sensor Array and Multichannel Signal Processing Workshop ([SAM 2010](#)) in Israel, co-chaired by Hagit Messer-Yaron and Jeffrey Krolk. Technical program chairs Joseph Tabrikian and Amir Leshem put together an excellent technical program featuring 6 plenary talks and 70 papers organized into special sessions, regular sessions, and a student paper competition.

In December 2011, the SAM TC will be sponsoring the 4th International Workshop on Computational Advances in Multi-Sensor Adaptive Processing ([CAMSAP 2011](#)) in Puerto Rico co-chaired by Aleksandar Dogandzic and Maria Sabrina Greco. Special session proposals are due in March and papers are due in July. The call for papers is appended to this newsletter.

It's also time to begin planning for SAM 2012. The SAM TC is currently soliciting proposals and will be selecting the SAM 2012 committee and venue in the spring of 2011.

Calendar

December 2010

- ICASSP Reviews/Preparation
- DL and Fellow Announcements

January 2011

- SPS Awards Announcements
- ICASSP Preparation

February 2011

- IEEE Fellow Nominations

March 2011

- SAM 2012 Proposals

April 2011

- DL Nominations

May 2011

- ICASSP 2011

June 2011

- SPS Awards Nominations

July 2011

- ICASSP EDICS
- SPS Awards Nominations
- CAMSAP 2011 Reviews

August 2011

- SPS Awards Nominations
- CAMSAP 2011 Reviews

September 2011

- SPS Awards Voting

October 2011

- SAM TC Member Nominations
- ICASSP Reviews

November 2011

- SAM TC Member Election
- ICASSP Reviews/Preparation

December 2011

- CAMSAP 2011
- ICASSP Preparation
- DL and Fellow Announcements

Calls for Papers/Proposals

Conference/Journal	Topic/Link	Deadline
SAM 2012	Workshop Proposals for evaluation by the SAM TC	Winter/Spring 2011
THEMES 2011	Emerging Technologies for Video Compression	February 2, 2011
CAMSAP 2011	Special Session Proposals	March 18, 2011
CAMSAP 2011	Papers	July 8, 2011
JSTSP	Special Issue Proposals	ongoing
JSTSP	Soft Detection for Wireless Transmission	January 10, 2011
JSTSP	Robust Measures and Tests Using Sparse Data for Detection and Estimation	March 10, 2011
JSTSP	Game Theory In Signal Processing	March 20, 2011
JSTSP	Signal Processing In Heterogeneous Networks For Future Broadband Wireless Systems	June 10, 2011

Calls for Nominations

Nomination/Position	Submit to	Deadline
IEEE Fellow Class of 2012 (info/form)	IEEE Fellow Program	March 1, 2011

About the SAM TC

The SAM TC addresses the areas of sensor array and multi-channel statistical signal processing. Our technical interests span the areas of signal detection and estimation, direction-of-arrival estimation, beamforming, blind source separation, source localization and tracking, multiple-input multiple-output (MIMO) systems and space-time

coding, sensor networks, and multichannel signal processing.

Our main application areas are focused on radar, sonar, navigation, seismology, radio astronomy, wireless communications, microphone arrays, and biomedicine.



**The Fourth International Workshop on
Computational Advances in Multi-Sensor Adaptive Processing**
December 13-16 2011; San Juan Marriott Resort - San Juan, Puerto Rico

CALL FOR PAPERS

Following the success of the first three editions, we are pleased to announce the fourth workshop in the CAMSAP series, sponsored by the Sensor Array and Multi-channel Technical Committee of the IEEE Signal Processing Society. CAMSAP 2011 will be held at the San Juan Marriott Resort in San Juan, Puerto Rico, and will feature plenary talks from the world's leading researchers in the area, special focus sessions, and contributed papers. To provide feedback to the authors and ensure a high-quality program, all papers will undergo peer review.

COMMITTEE

General Co-Chairs

Aleksandar Dogandzic, *Iowa State University, USA*
Maria Sabrina Greco, *University of Pisa, Italy*

Technical Program Co-Chairs

Sergiy A. Vorobyov, *University of Alberta, Canada*
Lee Swindlehurst, *University of California – Irvine, USA*

Finance Chair

Dominic K. C. Ho, *University of Missouri – Columbia, USA*

Local arrangement Co-Chairs

Juan F. Arratia, Ana G. Méndez *University System, San Juan, Puerto Rico*
Luis M. Vicente, *Polytechnic University of Puerto Rico*

Technical Program Committee

Sofiene Affes (INRS-EMT, Canada)	Jian Li (University of Florida, USA)
Kristine Bell (Metron Inc., USA)	Tom Luo (University of Minnesota, USA)
Rick Blum (Lehigh Univ., USA)	Arye Nehorai (Washington Univ. in S.Louis, USA)
Volkan Cevher (EPFL, Switzerland)	Daniel Palomar (HKUST, Hong Kong)
Alex Dimakis (USC, USA)	Alejandro Ribeiro (Univ. of Pennsylvania, USA)
Petar Djuric (State Univ. of New York, USA)	Brian Sadler (ARL, USA)
Alex Gershman (Darmstadt Un. of Tech., Germany)	Shahram Shahbazpanahi (UOIT, Canada)
Fulvio Gini (University of Pisa, Italy)	Nikos Sidiropoulos (TUC, Greece)
Simon Godsill (University of Cambridge, UK)	Ananthram Swami (ARL, USA)
Zhu Han (University of Houston, USA)	Joseph Tabrikian (Ben-Gurion Univ., Israel)
Yingbo Hua (Univ. California Riverside, USA)	Zhi Tian (Michigan Technological University, USA)
Andreas Jakobsson (Lund University, Sweden)	Jean-Yves Tournet (IRIT/ENSEEIH/TéSA, France)
Mos Kaveh (University of Minnesota, USA)	Mats Viberg (Chalmers Univ. of Tech., Sweden)
Visa Koivunen (Aalto University, Finland)	Aylin Yener (Pennsylvania State University, USA)
Amir Leshem (Bar-Ilan University, Israel)	Abdelhak Zoubir (Univ. of Darmstadt, Germany)
Hongbin Li (Stevens Inst. of Tech., USA)	

IMPORTANT DATES

Full four-page paper submission:
July 8th 2011
Notification of acceptance:
September 16th 2011
Final camera-ready papers:
October 14th 2011
Early registration:
November 4th 2011

TOPICS OF INTEREST:

- Convex optimization and relaxation methods
- Computational linear algebra
- Computer-intensive methods in statistical SP (bootstrap, MCM, EM, particle filtering)
- Distributed computing, estimation, and detection algorithms
- Sampling and signal processing methods that exploit sparsity
- Emerging techniques

APPLICATIONS:

- Array processing: beamforming, space-time processing, and waveform design
- Communication systems
- Sensor networks
- Biomedical SP
- Computational imaging
- Emerging applications

**For more information visit the website at:
www.conference.iet.unipi.it/camsap11**

