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With nearly 1200 submissions in 2011, the IEEE International Conference on Multimedia & Expo (ICME) has been the flagship multimedia conference sponsored by four IEEE societies since 2000. It serves as a forum to promote the exchange of the latest advances in multimedia technologies, systems, and applications from both the research and development perspectives of the circuits and systems, communications, computer, and signal processing communities. In 2013, an Exposition of multimedia products, animations and industries will be held in conjunction with the conference.

Authors are invited to submit a full paper (two-column format, 6 pages maximum) according to the guidelines available on the conference website at www.icme2013.org. Only electronic submissions will be accepted. Topics of interest include, but are not limited to:

• Speech, audio, image, video, text processing
• Signal processing for media integration
• 3D visualization, animation and virtual reality
• 3D imaging and 3DTV
• Multi-modal multimedia computing systems and human-machine interaction
• Multimedia communications and networking
• Multimedia security and content protection
• Multimedia databases and digital libraries
• Multimedia applications and services
• Media content analysis
• Multimedia standards and related issues
• Multimedia quality assessment

ICME 2013 aims to have high quality oral and poster presentations. Several awards sponsored by industrial and scholarly organizations will be presented. Best papers will be presented in a single-track session to all participants. Accepted papers must be presented at the conference in order to be included in the IEEE Xplore Library.

A number of Workshops will be organized by the sponsoring societies. To further foster new emerging topics, ICME 2013 also welcomes researchers, developers, and practitioners to organize regular Workshops. Potential organizers please contact the Workshop Chairs for further details. Proposals for Tutorials, Demos, and Exhibitions are also encouraged. Please visit the ICME 2013 website for submission details.

Regular Paper Abstract Submission: December 10, 2012
Regular Paper Submission: December 15, 2012
Workshop & Demo Paper Submission: February 20, 2013
Industrial & Application Short Paper Submission: March 31, 2013
Notification of Regular Paper Acceptance: March 1, 2013
Notification of Workshop and Demo Paper Acceptance: April 15, 2013
Camera-Ready Paper Due: April 30, 2013
Workshop Proposal Due: December 31, 2012
Tutorial Proposal Due: January 31, 2013

Conference Website: www.icme2013.org
Contact Email: webmaster@icme2013.org
A Message from the Vice President of Publications on New Developments in Signal Processing Society Publications

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http://dx.doi.org/10.1109/TSP.2012.2208525
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Dynamic Bit Allocation for Object Tracking in Wireless Sensor Networks
http://dx.doi.org/10.1109/TSP.2012.2204257
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Robust Fault Detection With Statistical Uncertainty in Identified Parameters
http://dx.doi.org/10.1109/TSP.2012.2208638
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Performance Limits for Distributed Estimation Over LMS Adaptive Networks
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Robust PCA as Bilinear Decomposition With Outlier-Sparsity Regularization
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# IEEE Transactions on Image Processing

A PUBLICATION OF THE IEEE SIGNAL PROCESSING SOCIETY

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- **Image formation:** Biomedical imaging, remote sensing, geophysical and seismic imaging, optical/infrared hybrid image systems
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- **Submission of papers** January 11, 2013
- **Notification of acceptance** April 12, 2013
- **Submission of camera-ready papers** May 10, 2013
- **Author registration** June 6, 2013

Tutorials: Tutorials will be held on September, 15, 2013. Brief proposals should be submitted by January 25, 2013 at the conference web site. Proposals for tutorials must include a title, an outline of the tutorial and its motivation, a short description of the material to be covered, contact information including name, affiliation, email, and mailing address for each presenter, and a two-page CV for each presenter.

Special Sessions: Special sessions expressions of interest should be submitted by November 30, 2012, at the conference web site. Final proposals for special sessions must include a session title, rationale, session outline, contact information and biography for the session chair(s), list of authors who have agreed to present a paper in the session, and a tentative title and abstract for each paper.

- **Special sessions expressions of interest due** November 30, 2012
- **Notification of special sessions acceptance** December 21, 2012
- **Tutorial proposals due** January 25, 2013
- **Notification of tutorial acceptance** March 6, 2013

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AVSS is the premier annual international conference in the field of video and signal-based surveillance that brings together experts from academia, industry, and government to advance theories, methods, systems, and applications related to surveillance. AVSS is sponsored by the IEEE and, in particular, by its two societies, the Signal Processing Society (IVMSP TC) and the IEEE Computer Society (PAMI TC).

AVSS will celebrate its 10th anniversary in Kraków in 2013. It has been steadily growing in both stature and attendance, from about 70 attendees in 1998 (Genova, Italy) to 125 in 2010 (Boston, USA) and 140 in 2011 (Klagenfurt, Austria). Even more attendees are expected in 2012 in Beijing, China.

AVSS focuses on underlying theory, methods, systems, and applications of surveillance and invites submissions in areas listed below, especially cross-disciplinary and game-changing ones. The list of topics of interest includes, but is not limited to:

- **Sensor-Centric Processing**
  - Sensors (visible/infrared/3D/mm-wave/audio/radio, etc.)
  - Ground, airborne, satellite based (fixed/mobile/UV)
  - Crowdsourcing (cellular, social networks)
  - Calibration and positioning (GPS, etc.)
  - Communications and networked sensing

- **Data Management & Human-Computer Interaction**
  - Compression and summarization
  - Archival, search and retrieval
  - Human-computer interfaces
  - Visualization algorithms
  - Mobile and distributed interaction

- **Security and Privacy**
  - Data authenticity
  - Privacy in surveillance
  - Forensics
  - Biometrics (standoff, multi-modal, voice, etc.)
  - Cybersecurity for surveillance (wireless, network, computer)

- **Processing, Detection, Tracking & Recognition**
  - Modeling and feature selection
  - Detection and estimation (change, motion, anomaly, saliency, pattern)
  - Data association and (multi) target tracking
  - Classification and recognition
  - Multi-modal fusion

- **Analytics, Situation Awareness & Decision Making**
  - Activity/interaction analysis and monitoring
  - Intention estimation and situation awareness
  - Crowdsourcing-based methods
  - Cognitive dynamic systems and bio-inspired methods

- **Surveillance Systems and Applications**
  - Hardware and software architectures
  - Research prototypes
  - Simulators
  - Civilian, industrial, and military
  - Transportation (road, rail, air, maritime)
  - Performance evaluation

About Kraków: The royal capital of Poland until late 16th century, today Kraków is home to a quarter of country’s museum resources. Visiting Kraków amounts to an encounter with the most splendid time in Polish history. Its Old City, where AVSS will be held, the Wawel Hill and the district of Kazimierz were all entered into the 1978 UNESCO World Heritage List. Beyond history, Kraków offers scenic walks, lots of artistic and cultural events, and rich gastronomy. Located in the heart of Central Europe, Kraków is easily accessible by air, rail and roadway.

**Paper Submission:** Prospective authors are invited to submit full-length papers, up to 6 pages long, by March 18, 2013. Detailed submission instructions will be posted on the conference website at www.avss2013.org in due time. Each submission will be double-blind peer-reviewed by at least two experts. The conference proceedings will be published in IEEE Xplore digital library.

**Call for Workshops:** AVSS-2013 will host workshops on August 27, 2013 prior to the technical program of the conference. Prospective organizers are invited to submit workshop proposals by February 18, 2013. Please visit the conference website at www.avss2013.org for additional information.

**Important dates:**
- Workshop proposals: February 18, 2013
- Paper submission: March 18, 2013
- Paper acceptance: May 20, 2013
- Camera ready: June 17, 2013
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Call for Papers
IEEE Signal Processing Society
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Special Issue on Video Coding: HEVC and beyond

Currently, video communication represents about half of the entire network traffic, with tendency for further increase. Therefore, techniques aiming at efficient compression of video are of paramount importance; an example is how to potentially avoid the “spectrum crunch” which is foreseen due to increasing traffic in mobile networks. Substantial amount of effort have been made in this area during the recent past years, which resulted in the new generation of video compression standard, called High Efficiency Video Coding (HEVC). For similar quality, the current architecture of HEVC only consumes half of the transmission bandwidth of the previous AVC/H.264 standard. The compression capability of HEVC establishes a new benchmark both in video and still image coding. This special issue is intended to provide a forum for recent research in HEVC standardization and possible add-on techniques, which would have potential to further improve its performance, or could even be used for future developments beyond HEVC.

We invite original and unpublished research contributions relevant to the following areas:

- **High coding efficiency techniques**
  Techniques proposed in the course of standardization, either relevant in the context of the HEVC standard or methods that have potential future development of video coding technology.

- **Video coding with high visual fidelity**
  Whereas conventional video codecs often target for optimization of PSNR, this does not necessarily match the visual quality related to human perception. The special issue solicits new techniques to improve visual quality, either in the context of HEVC or beyond.

- **Parallel visual signal coding techniques**
  Visual signal coding and communication must meet the challenges of processing resource constraints. Papers with new video coding architectures are particularly suitable for parallel coding implementation.

- **Analysis and synthesis coding**
  Visual information analysis before and during the coding process showed the future trends of visual signal coding. This special issue solicits emerging ideas and techniques of analysis and synthesis coding.

Prospective authors should visit [http://www.signalprocessingsociety.org/publications/periodicals/jstsp/](http://www.signalprocessingsociety.org/publications/periodicals/jstsp/) for information on paper submission. Manuscripts should be submitted using the Manuscript Central system at [http://mc.manuscriptcentral.com/jstsp-ieee](http://mc.manuscriptcentral.com/jstsp-ieee). Manuscripts will be peer reviewed according to the standard IEEE process.

- **Manuscript submission due:** January 10, 2013
- **First review completed:** March 10, 2013
- **Revised manuscript due:** April 10, 2013
- **Second review completed:** June 10, 2013
- **Final manuscript due:** June 25, 2013

**Guest editors:**

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Call for Papers
IEEE Signal Processing Society
IEEE Journal of Selected Topics in Signal Processing

Special Issue on Non-cooperative Localization Networks

Localization of non-cooperative subjects refers to the process of locating subjects who are not intentionally participating in the localization process but still affect the radio spectrum in some way. The subjects may be actively avoiding localization, or they may be passive and not emitting any useful signals; however, a wireless network deployed to locate them may contain elements which actively transmit. Applications of this area include anti-terrorism or law enforcement, patient monitoring in medical facilities, and location-aware services and data-mining. In anti-terrorism and law-enforcement, the subjects are generally hostile and are trying to maintain a low radio profile; whereas in location-aware commercial services, the subjects may not mind being located, but they are still unlikely to actively assist the process.

Non-cooperative localization methods tend to fall under three categories: exploitation of a subject’s radio shadow, as in radio tomographic imaging (RTI); exploitation of a subject’s radio reflectance, as in multistatic radar or ultra wideband through-the-wall imaging; and exploitation of a subject’s radio emissions, as in radio frequency identification (RFID) tag tracking or tracking spurious emissions from a radio device’s local oscillator. This special issue covers the signal processing theory, modeling, and implementation issues particular to localization of non-cooperative subjects. The sensor network may consist of a single or multiple sensing modalities. Specific topics of interest include, but are not limited to:

- Localization of passive or device-free subjects
- Radio tomographic imaging
- Passive subject ultra wideband position location networks and through-the-wall human tracking
- Passive, multistatic radar and multi-target tracking
- Localization of RFID tags
- Localization of a radio device via its spurious or evasive emissions
- Signal processing for sparse localization networks: compressive sensing and statistical inversion
- Passive localization in the presence of multipath, non-line-of-sight, jamming, and/or interference
- Ad-hoc passive localization with a sparse matrix of nodes and/or with nodes dropping in and out
- Communication and routing protocols for RTI networks or RFID tag tracking networks

Prospective authors should visit http://www.signalprocessingsociety.org/publications/periodicals/jstsp/ for information on paper submission. Manuscripts should be submitted using the Manuscript Central system at http://mc.manuscriptcentral.com/jstsp-ieee. Manuscripts will be reviewed via the standard IEEE process.

Manuscript submission due: Jan. 17, 2013
First review completed: Apr. 10, 2013
Revised manuscript due: Jun. 10, 2013
Second review completed: Sep. 10, 2013
Final manuscript due: Oct. 1, 2013

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Michael Rabbat, Dept. of Electrical & Comp. Engineering, McGill University, michael.rabbat@mcgill.ca
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The first IEEE China Summit & International Conference on Signal and Information Processing (ChinaSIP 2013) will be held 6-10 July 2013 at the China National Convention Center (CNCC), Beijing, China.

Sponsored by the IEEE Signal Processing Society (SPS), ChinaSIP is a new annual summit and international conference held in China for domestic and international scientists, researchers, and practitioners to network and discuss the latest progress in theoretical, technological, and educational aspects of signal and information processing. ChinaSIP is a unique platform developed by IEEE SPS to help colleagues in China engage with the global community, and offer global colleagues opportunities to network and develop international collaborations.

As the inaugural summit and conference, ChinaSIP 2013’s features include:

- **Technical tracks and industry forum.** Papers and presentations along the regular technical tracks as listed below focus on novel and significant research contributions. An industry forum provides a platform for exchange and networking among SIP industries as well as between academia and industries.

- **Invited papers and open-call papers.** Special invitations will be extended to major influential research groups in China to submit their latest contributions. Invited papers will be peer reviewed, and only papers with sufficient quality and significance will be accepted. In parallel, papers are also accepted through an open call from the community at large on a competitive basis.

- **Journal poster sessions.** Journal poster sessions provide a venue for overview and showcase of recent publications accepted by SPS journals. These already published journal papers will not be re-published with the ChinaSIP proceedings onto the IEEE Xplore®; a weblink and/or a reprint copy will be made available to attendees to facilitate conference exchanges.

- **Professional development program.** Several professional development activities will be organized, such as townhall meetings with the SPS leadership, trends/overview sessions, publication (EIC/AE) panels, and Fellow development sessions.

- **Summer schools.** The conference will set up summer schools before the regular sessions begin for students, researchers and practitioners to learn the state-of-the-art technologies and tools.

The regular technical program tracks and topics include (but not limited to):

- Signal/Information Processing Theory and Methods
- Speech, Language, and Audio
- Image, Video, and Multimedia
- Signal Processing for Communications and Networking
- Signal Sensing, Radar, Sonar, and Sensor Networks
- SIP Hardware/Software Designs and Systems
- Information Forensics and Security
- Pattern Recognition and Machine Learning
- Signal/Info Processing for Bioinformatics & Bio/Medicine

**Submission of Papers**

The official language of the conference is English. Prospective authors are invited to submit up to 4 pages in length (with an optional 5th page containing only references). The conference proceedings will be published at the IEEE Xplore®, and will be indexed by both IEEE Xplore® and EI Compendex.

The IEEE Signal Processing Society enforces a “no-show” policy. Any accepted paper included in the final program is expected to have at least one author or qualified proxy attend and present the paper at the conference. Authors of the accepted papers included in the final program who do not attend and present at the conference will be added to a “No-Show List”, compiled by the Society. The “no-show” papers will not be published by IEEE on IEEE Xplore® or other public access forums, but these papers will be distributed as part of the on-site electronic proceedings and the copyright of these papers will belong to the IEEE.

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**Exhibit and Demos**
ChinaSIP 2013 welcomes exhibitions of products and demonstrations of R&D systems within the areas relevant to the conference.

**Supporter Opportunities**
Numerous opportunities are available to industrial, academia, and non-profit organizations to support the conference.

Please refer to the conference website for details on exhibit, demo, and supporter opportunities.

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CALL FOR PAPERS
IEEE Signal Processing Society

Special Issue
IEEE SIGNAL PROCESSING MAGAZINE

Special Issue on Signal and Image Processing in Hyperspectral Remote Sensing

Aims and Scope
Hyperspectral imaging has recently emerged as one of the very promising technologies in remote sensing, enabling applications that may have been previously seen as impossible in multispectral imaging. Hyperspectral cameras deployed in current airborne or satellite systems can cover the visible and near-infrared wavelengths at a resolution of 10nm, with more than 200 spectral channels. This vastly increased spectral information content creates a unique opportunity for numerous applications, such as mineral identification, agriculture, environment monitoring, terrain classification, object detection, change detection, and many more. Hyperspectral imaging is also a key technique for planetary exploration, astrophysics, and non-remote sensing problems such as food inspection and forensics. Remarkably, these meaningful and important applications have led to a wide variety of signal processing problems, which have attracted growing attention and contributions from the signal processing, image processing and machine learning communities. In particular, we have witnessed developments that are far from being just a straight application of a signal processing technique. Instead, some of them turn out to provide new insights and open new dimensions for fundamental signal processing research. For example, it has recently become clear that the unmixing topic in hyperspectral remote sensing has formed a new branch of blind source separation techniques, wherein the exploitation of special source characteristics, such as local sparsity, has been found to provide very effective blind separation solutions. The same goes with the classification and detection topics, where the utilization of contextual information or combined spatial-spectral processing has resulted in new paradigms. Moreover, the recent research trend indicates that hyperspectral signal and image processing is embracing frontier signal processing concepts very quickly—this includes sparse signal processing, compressive sensing, and convex and nonconvex optimization, just to name a few.

The aim of this special issue is to gather high-quality tutorial-style articles that introduce key signal processing topics arising from hyperspectral remote sensing, demonstrate the insight and uniqueness of signal processing techniques established in this area, and/or provide overviews of the latest trends. In particular, we wish to shift the perspective from the remote sensing side to signal processing, and extract insight behind the signal processing developments happening in hyperspectral remote sensing. While this is the focus of this special issue, we may also welcome application-oriented papers that can tell a good story regarding how signal processing makes a difference.

Topics of Interest include (but are not limited to):
- unmixing, both linear and nonlinear, and both semisupervised and unsupervised
- classification
- target or anomaly detection at a subpixel level
- coded aperture and compressive sensing
- sparse signal processing, which includes sparse regression, dictionary learning, multiple measurement vector models, etc
- convex and nonconvex optimization
- contextual information or combined spatial-spectral processing
- Bayesian and statistical signal processing
- nonlinear manifold learning, graph theoretic methods
- dimension reduction, subspace identification, non-negative matrix factorization

Submission Process
Articles submitted to this special issue must contain significant relevance to signal processing and its application to hyperspectral remote sensing. All submissions will be peer reviewed according to the IEEE and Signal Processing Society guidelines. Submitted articles should not have been published or under review elsewhere. Manuscripts should be submitted online at http://mc.manuscriptcentral.com/sps-ieee using the Manuscript Central interface. Submissions to this special issue of the IEEE SIGNAL PROCESSING MAGAZINE should have significant tutorial value. Prospective authors should consult the site http://www.signalprocessingsociety.org/publications/periodicals/spm/ for guidelines and information on paper submission.

Important Dates

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<td>White paper (4 pages) due</td>
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<td>Manuscript submission due</td>
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<td>Final manuscript due</td>
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State/Province Country Mo./Yr. Degree Received

B. Highest Technical Degree Received Program/Course of Study

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The 14th IEEE International Workshop on Signal Processing Advances in Wireless Communications

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The workshop is devoted to recent advances in signal processing for wireless and mobile communications, information and network theory. The technical program will feature keynote addresses and tutorials by leading researchers, as well as invited and contributed papers.

IMPORTANT DATES:
Submission deadline: February 4th, 2013
Notification of acceptance: March 29th, 2013
Final paper due: April 10th, 2013

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- Smart antennas, MIMO systems, and space-time coding
- Single-carrier, multi-carrier, and multi-rate systems
- Multiple access and broadcast channels, multi-user receivers
- Fundamental limits on capacity and performance analysis
- Cross-layer issues: from physical to networking and application layers
- Signal processing tools for ad-hoc, multi-hop, and sensor networks
- Cooperative communication, coordinated multipoint transmission and reception
- Cognitive networking
- Cooperative sensing and compressed sensing
- Distributed resource allocation and scheduling
- Ultra-wideband radio and RFID
- Time, frequency, spatial, multi-user diversity in fading channels
- Modeling, estimation and equalization of time-varying channels
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- Spoken language processing

Vancouver: Vancouver is one of the most beautiful cities in the world. It is surrounded by dense pine forests, snow-capped mountains and fjords. The ocean and the mountains surround the city while the expanses of the trees cover it. It is a city with vast beaches and lush parks combined with magnificent architecture. Vancouver is the place to enjoy the golden era of signal processing as our field (as well as to explore British Columbia) and is waiting to welcome you and your family.

Submission of Papers: Prospective authors are invited to submit full-length papers. The length of the paper may be changed from past years. The ICASSP 2013 website www.icassp2013.com will provide you with further details. A selection of best papers will be made by the ICASSP 2013 committee upon recommendations from Technical Committees.

Notice: The IEEE Signal Processing Society enforces a “no-show” policy. Any accepted paper included in the final program is expected to have at least one author or qualified proxy attend and present the paper at the conference. Authors of the accepted papers included in the final program who do not attend the conference will be subscribed to a "No-Show List", compiled by the Society. The "no-show" papers will not be published by IEEE on IEEE Xplore or other public access forums, but these papers will be distributed as part of the on-site electronic proceedings and the copyright of these papers will belong to the IEEE.

Tutorial and Special Sessions Proposals: Tutorials will be held on May 26 and 27, 2013. Brief proposals should be submitted by August 31, 2012, to tutorials@icassp2013.com and must include title, outline, contact information, biography and selected publications for the presenter(s), and a description of the tutorial and material to be distributed to participants. Special sessions proposals should be submitted by August 31, 2012, to specialsessions@icassp2013.com and must include a topical title, rationale, session outline, contact information, and a list of invited papers. Refer to the ICASSP 2013 website for additional information.

Important Deadlines:

- Special Session & Tutorial Proposals Due: August 31, 2012
- Notification of Special Session & Tutorial Acceptance: October 1, 2012
- Submission of Regular Papers: November 19, 2012
- Notification of Paper Acceptance: February 18, 2013
- Revised Paper Upload Deadline: March 18, 2013
- Author's Registration Deadline: March 18, 2013