



LVA ICA 2012

The 10th International Conference
on Latent Variable Analysis
and Signal Separation

Formerly the International Conference
on Independent Component Analysis
and Signal Separation



Tel-Aviv, Israel
March 12-15, 2012

Call for Papers – Extended Deadline

Conference Web-Site: <http://events.ortra.com/lva/>

Important Dates:

Paper Submission: **17-OCT-2011**
Authors Notification: **28-NOV-2011**
Final version due: **12-DEC-2011**
Author Registration: **9-JAN-2012**
SiSEC 2011 Abstracts: **15-JAN-2012**

Keynote Speakers:

Lieven De Lathauwer
Katholieke Universiteit Leuven
(Belgium)

Michael Elad
Technion – Israel Institute of
Technology (Israel)

Amnon Shashua
Hebrew University of Jerusalem
(Israel)

Paris Smaragdis
University of Illinois at Urbana-
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SiSEC Evaluation Chairs:

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Guido Nolte
Fraunhofer Institute (Germany)
Francesco Nesta
Fondazione Bruno Kessler – IRST
(Italy)

The 10th in a series of international conferences which began in 1999 and attracted hundreds of researchers and practitioners over the years, LVA/ICA 2012 will be held in **Tel-Aviv, Israel** on **March 12-15, 2012**, at the Sheraton Tel-Aviv Hotel & Towers. The series, which started out under the title of Independent Component Analysis (ICA) workshops, has continuously broadened its horizons: Starting with the fundamental theory and concepts of ICA and Blind Source Separation (BSS), which emerged during the 90's and mainly addressed the separation of linear mixtures of independent sources, the theme of these conferences has moved on and gradually expanded to encompass a host of additional forms and models of general mixtures of latent variables. Theories and tools borrowing from the fields of statistics, signal-processing, engineering, machine learning, linear and multi-linear algebra, numerical analysis and optimization, econometrics, psychometrics, data-mining, biomedical engineering and more, have brought together scientists and practitioners offering exciting interdisciplinary interactions.

Prospective authors are invited to submit original papers (up to 8 pages in Springer's LNCS format) in areas related to latent variable analysis, independent component analysis and signal separation, including but not limited to:

- **Theory:** statistical and probabilistic models; detection, estimation and performance criteria and bounds; causality measures; flat, hierarchical and dynamic structures; sparsity-promoting methods; learning theory; optimization tools;
- **Models:** latent variables modeling as parameters, vectors or signals, discrete or continuous; probabilistic or structural modeling; time-varying, memoryless, convolutive, noisy, noiseless, under- and over-complete;
- **Algorithms:** estimation, separation, identification, detection, blind and semi-blind methods, non-negative matrix factorization, tensor decomposition, adaptive and recursive estimation; features selection; time-frequency and wavelets based analysis; complexity analysis;
- **Applications:** speech and audio separation, recognition, dereverberation and denoising; auditory scene analysis; image segmentation, separation, fusion, classification, texture analysis; biomedical signal analysis, imaging, genomic data analysis, brain-computer interface;
- **Emerging related topics:** social networks; data-mining; artificial intelligence; sparse coding; objective and subjective performance evaluation.

The proceedings will be published in Springer's Lecture Notes in Computer Science (LNCS) Series.



LVA/ICA 2012 will also feature a special session devoted to the third Community-Based Signal Separation Evaluation Campaign (SiSEC 2011). Prospective participants in the campaign are encouraged to submit a paper to LVA/ICA 2012 describing their approach. Accepted papers will be published in the conference proceedings. In addition, entrants not wishing to submit a paper will have the opportunity to present a poster about their approach. All posters are welcome, in the limit of available space. In order to present a poster, an abstract should be submitted by Jan. 15, 2012. These abstracts will be linked from the LVA/ICA 2012 web-site, but will not be included in the proceedings.

The International ICA Steering Committee

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Jean-François Cardoso (France)
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