



LVA ICA

September 27-30, St. Malo, France

2010th

Celebrating the anniversary

Ninth International Conference on Latent Variable Analysis and Signal Separation

Formerly the International Conference on
Independent Component Analysis and Signal Separation

IMPORTANT DATES

April 8, 2010 :

Paper submission deadline

June 15, 2010 :

Notification of acceptance

June 30, 2010 :

Final paper due

July 31, 2010 :

Late-breaking / demo / SiSEC
abstract submission deadline

Detailed submission instructions
are available on the
conference website.

<http://lva2010.inria.fr>

KEYNOTE SPEAKERS

Pierre Comon (France)

Stéphane Mallat (France)

Mark Girolami (UK)

Arie Yeredor (Israel)

GENERAL CHAIRS

Rémi Gribonval (France)

Emmanuel Vincent (France)

PROGRAM CHAIRS

Vincent Vigneron (France)

Éric Moreau (France)

Vicente Zarzoso (France)

EVALUATION CHAIRS

Shoko Araki (Japan)

Fabian Theis (Germany)

Guido Nolte (Germany)

CALL FOR PAPERS

Prospective authors are invited to submit papers in all areas of latent variable analysis and signal separation, including but not limited to:

- Theoretical frameworks :

probabilistic, geometric & biologically-inspired modeling ; flat, hierarchical & dynamic structures ; sparse coding ; kernel methods ; neural networks.

- Models :

linear & nonlinear models; continuous & discrete latent variables ; convolutive & noisy mixtures ; linear & quadratic time-frequency representations.

- Algorithms :

blind & semi-blind estimation ; identification & convergence conditions; local & evolutionary optimization ; computational complexity ; adaptation & modularity.

- Speech and audio data :

source separation; denoising & dereverberation ; CASA ; ASR.

- Images :

segmentation ; fusion ; texture analysis ; color imaging ; coding ; scene analysis.

- Biomedical data :

functional imaging ; BCI ; genomic data analysis ; systems biology.

- Unsolved and emerging problems:

causality detection; feature selection; data mining ; control ; psychology ; social networks ; finance ; artificial intelligence ; real-time applications.

- Resources :

software ; databases ; objective & subjective evaluation procedures.

Papers must be original and must not be already published nor under review elsewhere. Papers linked to a submission to SiSEC 2010 (a community-based evaluation campaign) are highly welcome. The proceedings will be published in Springer-Verlag's Lecture Notes in Computer Science (LNCS) Series.

SPECIAL ISSUE / BEST STUDENT PAPER AWARD

Extended versions of selected papers will be considered for a special issue of the journal *Signal Processing*, edited by Elsevier, on Latent Variable Analysis and Signal Separation.

The best student paper will be distinguished by an award.

LATE-BREAKING / DEMO / SiSEC SESSION

A special session will be dedicated to the presentation of :

- early results and ideas that are not yet fully formalized and evaluated ;
- software and data of interest to the community, with focus on open source resources ;
- signal separation systems evaluated in SiSEC 2010 but not associated with a full paper.

Presenters are invited to submit a non-reviewed abstract, which will be included in the conference program but not published in the proceedings.

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Ten years after the first ICA workshop in Aussois, the series of ICA conferences has shown the liveliness of the community of theoreticians and practitioners working in this field. While ICA and blind signal separation have become mainstream topics, new approaches have emerged to solve problems involving signal mixtures or various other types of latent variables: semi-blind models, matrix factorization using SCA, NMF, PLSI, but also tensor decompositions, IVA, ISA, ... The 9th edition of the conference, renamed LVA/ICA to reflect this evolution towards more general Latent Variable Analysis problems in signal processing, will offer an interdisciplinary forum for scientists and engineers to experience renewed theoretical surprises and face real-world problems. In addition to contributed papers (oral & poster), keynote talks, a community-based evaluation campaign (SiSEC 2010), and a special late-breaking / demo session, the meeting will feature a panel discussion session.



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