

Forword

We would like to welcome all of you to the 1999 IEEE-EURASIP Workshop on Nonlinear Signal and Image Processing (NSIP'99), June 20-23, 1999, Antalya, Turkey. This is the fourth in a series of international workshops sponsored by IEEE and EURASIP.

We believe that the NSIP'99 workshop provides a good opportunity for researchers and practitioners to present, as well as keep abreast of the latest developments in nonlinear signal and image processing. An excellent technical program has been put together which was selected from a large number of submitted papers and invited special sessions. The technical program covers the theory and applications of nonlinear techniques in signal and image processing. Specific topics addressed include order statistic type filters and filter banks, morphological signal and image processing and analysis, neural networks for signal processing, Volterra and general polynomial type filters, implementation of nonlinear systems, chaotic and fuzzy systems in signal and image processing, nonlinear techniques for waveform coding, robust methods for detection and estimation, stochastic nonlinear image processing, and nonlinear techniques for color images and image sequences. In addition to regular sessions six plenary talks are presented by Stephane Mallat, H. J. Trussell, Ahmed H. Tewfik, Edward R. Dougherty, James A. Cadzow, and Rui J. P. deFigueiredo. Also, special invited sessions on fractional Fourier transform, transforms in signal and image processing, DSP education, and blind and non-blind channel equalization are organized. We thank T. Akgül, J. Astola, K. Egiazarian, H. Krim, S. Mitra, B. Onaral, H. Özaktas, A. H. Sayed, L. Yaroslavsky, and M. Zeytinoglu for organizing the special sessions.

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We thank the technical program committee, NSIP board members, reviewers and most importantly authors for their contributions. In addition, we are grateful to Ömer N. Gerek, Mürüvet Parlakay and Khaled Ben Fatma for their assistance.

We hope to see all of you again in the next NSIP workshop to be held in 2001!

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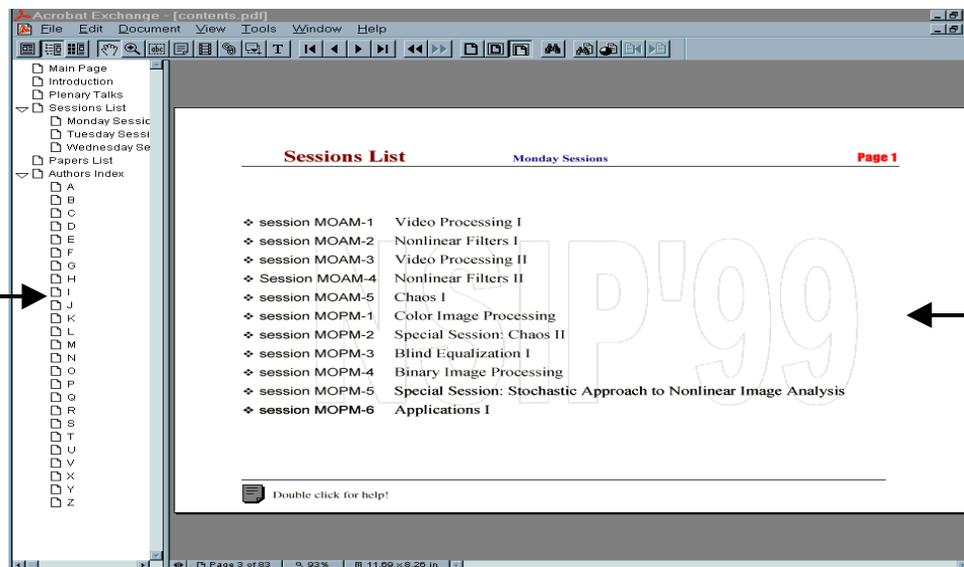
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University of California, USA

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Ahmed H. Tewfik
University of Minnesota, USA

- 4 **Nonlinear filters in genomic control**
E. R. Dougherty(1), M. L. Bittner(2), Y. Chen(2), S. Kim(1), K. Sivakumar(3), J. Barrera(4),
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(1) Texas A&M University, USA
(2) National Human Genome Research Institute, USA
(3) Washington State University, USA
(4) Universidade de Sao Paulo, Brazil

- 5 **Application of the L1 norm in signal processing**
James A. Cadzow
Vanderbilt University, USA

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H. J. Trussell(1) and M. J. Vrhel(2)

(1) North Carolina State University, USA

(2) Color Savvy Systems Ltd., USA

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(1) University of California, USA
(2) Bilkent University, Turkey

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Tampere University of Technology, Finland

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(1) State Aerospace University, Ukraine
(2) Tampere University of Technology, Finland
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(1) Advanced Technologies Laboratory, Italy
(2) University of Trieste, Italy

- 12 **Application of vector rational interpolation to erroneous motion field estimation of error concealment**
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(1) Aristotle University of Thessaloniki, Greece
(2) Tampere University of Technology, Finland

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(1) Northwestern University, USA
(2) Illinois Institute of Technology, USA

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Swiss Federal Institute of Technology, Switzerland

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Institut für Automatik, Switzerland

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(1) Tampere University of Technology, Finland
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(1) Ryerson University, Canada

(2) University of Toronto, Canada

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(1) Tampere University of Technology, Finland

(2) University of Trieste, Italy

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(1) University of Sao Paulo, Brazil
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INRIA, France

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B. Pesquet-Popescu(1) and J.-C. Pesquet(2)

(1) Laboratoire d'Electronique de Philips, France

(2) Universite Paris-Sud, France

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(1) Naval Academy, Turkey

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(2) Tampere University of Technology, Finland

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(1) State Aerospace University, Ukraine

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University of Bucharest, Romania

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(2) Ankara University, Turkey

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Ecole des Mines de Paris, France

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E. Rundblad(1), V. Labunets(1), K. Egiazarian(2), and J. Astola (2)

(1) Ural state technical university, Russia

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(1) Vinnitsa State Technical University, Ukraine
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(2) Tampere University of Technology, Finland

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(1) University of Malaga, Spain

(2) University of Maryland Medical School, USA

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(1) University of Illinois at Chicago, USA

(2) University of Chicago, USA

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(1) Massana Ltd., Ireland

(2) Drexel University, USA

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State University of Penza, Russia

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(1) Tampere University of Technology, Finland
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(1) University of Bremen, Germany
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