

Moshe Porat

Citations as of 17.5.11 according to *Google Scholar*;
(in parentheses – according to *ISI*)

The generalized Gabor scheme of image representation in biological and machine vision
M Porat, YY Zeevi - IEEE Transactions on Pattern Analysis and Machine ..., 1988 - doi.ieeeecs.org
Abstract-A scheme suitable for visual information representation in a combined frequency-position
space is investigated through image decomposition into a finite set of two-dimensional Gabor
Elementary Functions (GEF). The scheme ...
Cited by 375 (ISI 203)

Localized texture processing in vision: analysis and synthesis in the Gaborian space
M Porat, YY Zeevi - Biomedical Engineering, IEEE Transactions on, 1989 - ieeexplore.ieee.org
I. INTRODUCTION NE of the main tasks of a visual system (biological or machine
vision) is to separate the image into discrete entities or segments in order
to understand the scene. This segmentation is based mainly on the detection ...
Cited by 183 (ISI 97)

The farthest point strategy for progressive image sampling - ?technion.ac.il [PDF]
Y Eldar, M Lindenbaum, M Porat, YY Zeevi - Image Processing, IEEE Transactions on, 1997 -
ieeexplore.ieee.org Abstract— A new method of farthest point strategy (FPS) for progressive image
acquisition—an acquisition process that enables an approximation of the whole
image at each sampling stage—is presented. Its main advantage is in ...
Cited by 91 (ISI 49)

Similarity-invariant signatures for partially occluded planar shapes
AM Bruckstein, N Katzir, M Lindenbaum, M Porat - International Journal of Computer Vision, 1992 –
Springer Abstract A methodology is described for associating local invariant signature functions to
smooth planar curves in order to enable their translation, rotation, and scale-invariant recognition
from arbitrarily clipped ...
Cited by 38 (ISI 23)

Analysis and synthesis of multicomponent signals using positive time-frequency distributions
A Francos, M Porat - Signal Processing, IEEE Transactions on [see also Acoustics, ..., 1999 -
ieeexplore.ieee.org Abstract—A new approach to the analysis and reconstruction of multicomponent
nonstationary signals from their time-frequency distribution (TFD) is presented. Specifically, we
consider a TFD based on the recently introduced ...
Cited by 38 (ISI 23)

Curve segmentation under partial occlusion
N Katzir, M Lindenbaum, M Porat - Pattern Analysis and Machine Intelligence, IEEE Transactions ...,
1994 - ieeexplore.ieee.org IS . AJ Gray, "Simulating posterior Gibbs distributions: a comparison of the
Swendsen-Wang and Gibbs sampler methods," Statist. Computing, to appear, 1994.
PJ Green and X.-L. Han, "Metropolis methods, gaussian proposals and ...
Cited by 33 (ISI 18)

Image reconstruction from localized phase
J Behar, M Porat, YY Zeevi - Signal Processing, IEEE Transactions on [see also Acoustics, ..., 1992 -
ieeexplore.ieee.org I. INTRODUCTION HE importance of phase in image representation has received
considerable attention in the last decade. Motivations for investigating this subject range from vi-
sion to research in image processing. Consequently, ...
Cited by 32 (ISI 19)

Color image compression using inter-color correlation

L Goffman-Vinopal, M Porat - IEEE International Conference on Image Processing, 2002 - angsila.compsci.buu.ac.th (d) (e) Figure 2. Base color selection. In the compressed image (a), Green color was selected as a base color in all subblocks. In (b), the base color is the most correlative color, in (c) the base color is the color that produces ...

Cited by 30

Signal representation in the combined phase-spatial space: reconstruction and criteria for ...

M Porat, G Shachor - Signal Processing, IEEE Transactions on [see also Acoustics, ..., 1999 - ieeexplore.ieee.org Abstract— Motivated by the major roles of spectral phase in signal structure and by recent results on the importance of localized representation in images, we develop conditions for unique representation of a signal by a ...

Cited by 21 (ISI 13)

Can one evaluate the Gabor expansion using Gabor's iterative algorithm?

T Genossar, M Porat - Signal Processing, IEEE Transactions on [see also Acoustics, ..., 1992 - ieeexplore.ieee.org I. INTRODUCTION ABOR'S model, put forward in 1946 [1], is one of G the known nonorthogonal representations originally proposed for description of temporal signals in a combined time-frequency space in communications. This model ...

Cited by 21 (ISI 7)

Color image coding using regional correlation of primary colors

..., M Porat - Image and Vision Computing, 2007 - Elsevier

Most color compression systems reduce the redundancies between the RGB color components by transforming the color primaries into a decorrelated color space, such as YIQ or YUV. In this paper a different compression approach is proposed. Since the high correlation of the ...

Cited by 17 (ISI 5)

Correlation-based approach to color image compression

..., E Lavi-Burlak, M Porat - Signal Processing: Image ..., 2007 - Elsevier

Most coding techniques for color image compression employ a de-correlation approach—the RGB primaries are transformed into a de-correlated color space, such as YUV or YCbCr, then the de-correlated color components are encoded separately. Examples of this approach ...

Cited by 16 (ISI 4)

On color transforms and bit allocation for optimal subband image compression

..., M Porat - Signal Processing: Image Communication, 2007 - Elsevier

Although subband transform coding is a useful approach to image compression and communication, the performance of this method has not been analyzed so far for color images, especially when the selection of color components is considered. Obviously, the ...

Cited by 16 (ISI 6)

Multi-window Gabor schemes in signal and image representations

YY Zeevi, M Porat... - Gabor analysis and algorithms- Theory and ..., 1998 - csa.com

Multi-window Gabor schemes in signal and image representations. Yehoshua Y Zeevi, Moshe Porat, Meir Zibulski Gabor analysis and algorithms- Theory and applications(A 99-18209 03-64), Cambridge, MA, Birkhaeuser Boston, 1998,, 381-407, 1998. ...

Cited by 15

On the Approximation of L_2 Inner Products From Sampled Data

..., M Porat - Signal Processing, IEEE Transactions ..., 2007 - ieeexplore.ieee.org

Abstract—Most signal processing applications are based on discrete-time signals although the origin of many sources of information is analog. In this paper, we consider the task of signal representation by a set of functions. Focusing on the representation coefficients of the ...

Cited by 15 (ISI 6)

Optimal bi-orthonormal approximation of signals

[PDF] from univie.ac.at..., M Porat - Systems, Man and Cybernetics, IEEE ..., 1992 - ieeexplore.ieee.org

Abstract- Signal representation using nonorthogonal bases in general, and Gabor expansion specifically, is required for systems description and modeling in physics, biology, and engineering. In this paper the problem of signal approximation by partial sets of a given ...

Cited by 14 (ISI 6)

Optimal reconstruction of images from localized phase

S Urieli, M Porat... - Image Processing, IEEE ..., 1998 - ieeexplore.ieee.org

Abstract— The importance of localized phase in signal representation is investigated. The convergence rate of the POCS algorithm (projection onto convex sets) used for image reconstruction from spectral phase is defined and analyzed, and the characteristics of images optimally ...

Cited by 13 (ISI 11)

Does decorrelation really improve color image compression

..., M Porat - the International Conference on Systems Theory ..., 2005

Abstract: - The theory behind compression systems is well established, and it is a common assumption that image compression systems such as DCT (Discrete Cosine Transform) perform better in a decorrelated space than with the highly correlated RGB (Red, Green, Blue) ...

Cited by 9

Minimax approximation of representation coefficients from generalized samples

from technion.ac.il..., H Kirshner, YC Eldar, M Porat - ..., IEEE Transactions on, 2007 -

ieeexplore.ieee.org

Abstract—Many sources of information are of analog or continuous-time nature. However, digital signal processing applications rely on discrete data. We consider the problem of approximating 2 inner products, ie, representation coefficients of a continuous-time signal, from its ...

Cited by 9

A rate-distortion approach to optimal color image compression

[PDF] from eurasip.org..., M Porat - 14th European Signal Processing Conference (..., 2006 - eurasip.org

ABSTRACT Most image compression systems deal today with color images although the coding theory and algorithms are still based on gray level imaging. The performance of such algorithms has not been analyzed and optimized so far for color images, especially when the ...

Cited by 8

Parametric estimation of multicomponent signals using minimum cross entropy time-frequency distributions

..., M Porat - Time-Frequency and Time-Scale Analysis, 1996. ... - ieeexplore.ieee.org

PARAMETRIC ESTIMATION OF MULTICOMPONENT SIGNALS USING MINIMUM GROSS ENTROPY TIME-FREQUENCY DISTRIBUTIONS ... Department of Electrical Engineering Technion - Isreal Institute of Techrtology Haifa 32000, Israel. ... ABSTRACT The analysis and ...

Cited by 8

Optimal representation of images by localized phase

[PDF] from psu.eduS Urieli, M Porat... - icassp, 1996 - computer.org

ABSTRACT The POCS algorithm (Projection Onto Convex Sets) used for image reconstruction from spectral phase is investigated. The convergence rate of the algorithm is defined and analyzed, and the characteristics of images optimally represented by phase-only ...

Cited by 7

Optimal signal reconstruction from spectral amplitude

..., M Porat - ... Proceedings, 1997. DSP 97., 1997 13th ..., 1997 - ieeexplore.ieee.org

Page 1. OPTIMAL SIGNAL RECONSTRUCTION FROM SPECTRAL AMPLITUDE Yossi Shapiro and Moshe Porat Department of Electrical Engineering, Technion-IIT, Haifa 32000, Israel yshapiroQtz.technion.ac.il, mp@ee.technion.ac.il ...
Cited by 7

On signal reconstruction from Fourier magnitude
[PDF] from psu.edu..., M Porat - ... Circuits and Systems, 2001. ICECS 2001 ..., 2001 -
ieeexplore.ieee.org
ABSTRACT processing applications consider the of a signal from its Fourier transform
magnitude. This is often referred to as the phase retrieval problem in the fields of physics and
astronomy. In this paper, three new algorithms for signal reconstruction from spectral ...
Cited by 6

Progressive image coding using regional color correlation
[PDF] from technion.ac.il..., M Porat - Video/Image Processing and ..., 2003 - ieeexplore.ieee.org
Most color compression systems reduce the redundancies between the RGB color components
by transforming the color primaries into a decorrelated color space, such as YIQ or YUV. In this
paper a different compression approach is proposed. Since the high correlation of the ...
Cited by 6

The farthest point strategy for progressive image sampling
Y Eldar, M Lindenbaum, M Porat... - ... Recognition, 1994. Vol. ..., 1994 - ieeexplore.ieee.org
Page 1. The Farthest Point Stratem for Prog-essive Image Sampling Yuval Eldar 1 ,
Michael Lindenbaum , Moshe Porat and Yehoshua Y. Zeevi 1. LBM Israel Research
and Development, Haifa 3 1905, Israel. 2. Dept. of Computer ...
Cited by 6

Non-stationary signals: optimal sampling and instantaneous bandwidth estimation
..., N Peterfreund, M Porat - Time-Frequency and Time ..., 1998 - ieeexplore.ieee.org
... NIR N. BRUELLER, NATAN PETERFREUND AND MOSHE PORAT* Department of Electrical
Engineering, Technion, Haifa 32000, Israel * Corresponding author, Email: mp@ee.technion.
ac.il, Phone: +972 4 8294684, Fax: +972 4 8323041 Abstract ...
Cited by 6

Towards optimal bit-rate control in video transcoding
[PDF] from technion.ac.il..., M Porat - Image Processing, 2003. ICIP 2003. ..., 2003 - ieeexplore.ieee.org
Towards Optimal Bit-Rate Control in Video Transcoding* ... Amir Leventer and Moshe Poat
Department
of Electrical Engineering, Technion, Haifa 32000 Israel Corresponding Authors:
mp@ee.technion.ac.il ... ABSTRACT A new low complexity transcoder for pre-encoded ...
Cited by 5

Image representation by spectral amplitude: conditions for uniqueness and optimal reconstruction
..., M Porat - Image Processing, 1998. ICIP 98. ..., 2001 - ieeexplore.ieee.org
Image Representation by Spectral Amplitude: Conditions for Uniqueness and Optimal Reconstruction
Yossi Shapiro and Moshe Porat Department of Electrical Engineering Technion-IIT, Haifa
32000, Israel mp @ee. technion. ac. il Abstract New results in image representation and ...
Cited by 5

Data compression of color images using a probabilistic linear transform approach
..., M Porat - Numerical Methods and Applications, 2007 - Springer
Abstract. In this work, we design an efficient algorithm for color im- age compression using a
model for the rate-distortion connection. This model allows the derivation of an optimal color
components transform, which can be used to transform the RGB primaries or matrices into ...
Cited by 5

Computer image generation for flight simulators: the Gabor approach

YY Zeevi, M Porat... - The Visual Computer, 1990 - Springer

A formalism for image representation in the combined frequency-position space is presented using the generalized Gabor approach. This approach uses elementary functions to which the human visual system is particularly sensitive and which are efficient for the analysis and ...

Cited by 5

Gram-Gabor Approach to optimal image representation

M Porat... - Proceedings of SPIE, 1990 - link.aip.org

Gram-Gabor approach to optimal image representation. [Proceedings of SPIE 1360, 1474 (1990)].

Moshe Porat, Yehoshua Y. Zeevi. Abstract. Abstract not available.

Cited by 5

Image representation by localized phase

..., M Porat - Society of Photo-Optical Instrumentation ..., 1989 - adsabs.harvard.edu

Title: Image representation by localized phase. Authors: Zeevi, Yehoshua Y.; Porat, Moshe.

Affiliation: AA(Rutgers Univ.) AB(Technion-Israel Institute of Technology). Publication:

Proc. SPIE Vol. 1199, p. 1512-1517, Visual Communications ...

Cited by 5

On texture and image interpolation using Markov models

..., M Porat - Signal Processing: Image Communication, 2009 - Elsevier

Markov-type models characterize the correlation among neighboring pixels in an image in many image processing applications. Specifically, a wide-sense Markov model, which is defined in terms of minimum linear mean-square error estimates, is applicable to image restoration, ...

Cited by 5

Non-stationary signal processing using time-frequency filter banks with applications

..., M Porat - Signal processing, 2006 - Elsevier

We present a new approach to the design of time-frequency (TF) filter banks for non-stationary noisy signals. In this work, we concentrate on multicomponent signals represented by the minimum cross-entropy TF distribution (MCE-TFD). The proposed method is based on an array of ...

Cited by 5

On sampling invariant signal representation

..., M Porat - 2005 - Technion-IIT, Dept. of Electrical ...CCIT Report

Cited by 5

A dual transducer approach to ultrasound imaging and spatial deformations

[PDF] from technion.ac.il..., M Porat - Image Processing, 2000. Proceedings. ..., 2000 - ieeexplore.ieee.org

Ultrasound images exhibit inherent geometric distortions due to variations in sound speed within the body. Other distortions include missing surfaces parallel to the direction of the ultrasonic rays, intense speckle noise, acoustic shadows and resolution inconsistency. These ...

Cited by 4

On bit allocation in video coding and transcoding

[PDF] from technion.ac.il..., M Porat - Visual Information Engineering, 2003. ..., 2003 - ieeexplore.ieee.org

ABSTRACT Controlling the bit-rate of video streams has become a key task in multimedia communication

and broadcasting. In this work, we introduce an optimized video transcoder based on the systematic properties of the requantization process. Our method selects the optimal requantization ...

Cited by 4

Color image compression using inter-color correlation

..., M Porat - Proc. IEEE ICIP, 2002

Cited by 4

Projection-based approach to image analysis: pattern recognition and representation in the position-orientation space

H Greenspan, M Porat... - Pattern Analysis and ..., 1992 - ieeexplore.ieee.org

... PDF - Access Full Text Projection-based approach to image analysis: pattern recognition and representation in the position-orientation space. 166626 abstract; Rights And Permissions;

Greenspan, H.; Porat, M.; Zeevi, YY; Dept. of Electr. Eng., Technion-Israel Inst. ...

Cited by 4

Method and apparatus for image processing using model-based localized quantization

..., M Porat - US Patent 5,828,413, 1998 - Google Patents

US Patent Oct. 27,1998 sheet 5 of 5 5,828,413 FIG. 5 400- 200- 0- \ ir -100 -50 0 50 100 ... 5,828,413

codebook; and an encoder for encoding the at least one of said blocks with the first codebook, the encoder including means for determining an error criterion, and for further ...

Cited by 4

Image reconstruction from localized Fourier magnitude

[PDF] from technion.ac.il..., M Porat - Image Processing, 2001. Proceedings. ..., 2001 -

ieeexplore.ieee.org

ABSTRACT Fourier transform magnitude is, in many cases, the only measurable data in fields such as optics, x-ray imaging, crystallography and astronomy. Spectral phase information is impractical to obtain in these instances, due to the relatively short wavelength involved. In this paper ...

...

Cited by 3

On non uniform sampling of signals

..., N Peterfreund, M Porat - Industrial Electronics, 1998. ... - ieeexplore.ieee.org

Page 1. On Non-uniform Sampling of Signals' Nir N. Brueller Natan Peterfreund' Moshe Porat

Department of Electrical Engineering Technion - Israel Institute of Technology Technology

Technology Haifa, 32000 Haifa, 32000 Haifa, 32000 Israel Israel Israel ...

Cited by 3

An optimization based approach to color image compression using a rate-distortion model

..., M Porat - The Sixth IASTED International Conference ..., 2006 - actapress.com

AN OPTIMIZATION BASED APPROACH TO COLOR IMAGE COMPRESSION USING A

RATE-DISTORTION MODEL Evgeny Gershikov Department of Electrical Engineering Technion -

IIT Haifa 32000, Israel email: eugeny@tx.technion.ac.il Moshe Porat Department of Electrical ...

Cited by 3

A new approach to feature extraction for wavelet-based texture classification

[PDF] from 130.236.96.13..., M Porat - Image Processing, 2005. ICIP 2005. ..., 2005 -

ieeexplore.ieee.org

A new class of features for wavelet-based texture classification is introduced using a new feature-weighting scheme adapted to non-Euclidean similarity measures. The feature extraction is based on the histogram of the local second moment estimates of the wavelet transform. ...

Cited by 3

[PDF] On interpolation of differentially structured images

[PDF] from eurasip.org..., M Porat - European Signal Processing Conf., Poland, 2007 - eurasip.org

ABSTRACT A vector space approach to image reconstruction is derived and introduced. The continuous-domain image is assumed to belong to a reproducing kernel Hilbert space and the sampling process is shown to correspond to an appropriate orthogonal projection. The ...

Cited by 3

Image characteristics and representation by phase: from symmetric to geometric structure

S Urieli, M Porat... - Image Processing, 1996. ..., 1996 - ieeexplore.ieee.org

Page 1. IMAGE CHARACTERISTICS AND REPRESENTATION BY PHASE: FROM

SYMMETRIC TO GEOMETRIC STRIJECTURE Sharon Urzela' Moshe Porat' Nzr Cohen' 'IBM

Science & Technology, Haifa 31905, Israel (was with Technion-IIT) 'Dept. ...

Cited by 3

Signal reconstruction from partial spectral information

..., M Porat - ... Electronics, 1998. Proceedings. ISIE'98. IEEE ... - ieeexplore.ieee.org

Abstract - New results in signal representation and reconstruction from partial Fourier information are introduced. In particular, necessary and sufficient conditions for unique representation of two-dimensional signals (images) by spectral amplitude are introduced. It is shown that ...

Cited by 2

On a rate-distortion model for color images using a correlation-based approach

..., E Lavi-Burlak, M Porat - Electrical and Electronics ..., 2006 - ieeexplore.ieee.org

Abstract- Although most image compression algorithms deal today with color images, the theory behind the compression process is based mainly on monochrome tools. The common approach to color image coding is to decrease the high inter- color correlations in the RGB domain ...

Cited by 2

Non-stationary signal processing using time-frequency filter banks

..., M Porat - ... Proceedings, 1997. DSP 97., 1997 13th ..., 1997 - ieeexplore.ieee.org

Abstract: We prcxrit ;l. ricw approach to tlic dcsigri of Tirnc-Frequency (TF) filter bariks for riori-stationary rioisy sigrials. The input riiilicornporic~rit sigriial is rcprcscricd by tho hliriirriurri Cross-Entropy TF distributiiri irriti tlic systcrrri is hascc1 011 xi array of tirric-varying filtcrs. ...

Cited by 2

CCD Image Demosaicing using Localized Correlations

[PDF] from eurasip.org..., M Porat - Proc. of EUSIPCO, 2007 - eurasip.org

ABSTRACT A new approach to image interpolation using spatial relationships between adjacent pixels is introduced. In its first stage, the localized statistical relationships are studied based on the sparse version of the image. In the second stage, the governing rules of the image are ...

Cited by 2

On the role of exponential splines in image interpolation

..., M Porat - Image Processing, IEEE Transactions ..., 2009 - ieeexplore.ieee.org

Abstract—A Sobolev reproducing-kernel Hilbert space ap- proach to image interpolation is introduced. The underlying kernels are exponential functions and are related to stochastic autoregressive

image modeling. The corresponding image inter- polants can be implemented effectively ...

Cited by 2

On the Role of Exponential Functions in Image Interpolation

[PDF] from technion.ac.il..., M Porat - Technion, CCIT Report, 2008 - webee.technion.ac.il

A reproducing-kernel Hilbert space approach to image interpolation is introduced. In particular, the reproducing kernels of Sobolev spaces are shown to be exponential functions. These functions, in turn, give rise to alternative interpolation kernels that ...

Cited by 1

Localized compression of video conferencing

M Porat - Image Processing, 1997. Proceedings., International ..., 1997 - ieeexplore.ieee.org

Image compression for teleconferencing has been a ba- sic design goal for years [1, 21]. Significant compression can be usually obtained by developing a model for the information source, leading to a bit-rate which is far below the entropy. Unlike the case of speech, how- ever, since ...

Cited by 1

[PDF] Correlation vs. Decorrelation of Color Components in Image Compression-Which is Preferred?

[PDF] from eurasip.org..., M Porat - Proc. of EUSIPCO, 2007 - eurasip.org

Most image compression techniques are based on de-correlating the 3 color primaries before applying mono-chrome encoding to each of the resultant 3 components. Recently, however, a new approach to color image compression based on exploiting the ...

Cited by 1

Optimal color spaces for image demosaicing

[PDF] from polimi.it..., M Porat - Image Processing (ICIP), 2009 16th ..., 2009 - ieeexplore.ieee.org

ABSTRACT Most demosaicing algorithms today are based on first reconstructing the green (G) color component followed by the reconstruction of the red (R) and the blue (B) components using the green. This approach and associated methods of using the differences RG and ...

Cited by 1

[PDF] Optimal color image compression using localized color component transforms

[PDF] from eurasip.org..., M Porat - Proc. EUSIPCO 2008 - eurasip.org

ABSTRACT Most compression techniques for color images are based on de-correlating the color primaries. Recently, however, a new approach to color image compression, based on exploiting the correlations between the color components, has been presented, outperforming the ...

Cited by 1

Toward optimal real-time transcoding using requantization in the DCT domain

[PDF] from sysu.edu.cn..., M Porat - Image Processing (ICIP), 2009 16th IEEE ... - ieeexplore.ieee.org

Real-time multimedia applications often require efficient bit-rate reduction. This is mainly done by requantization, usually in the DCT domain. This work introduces theoretical rate-distortion analysis that allows for straightforward selection of the quantization step needed to ...

Cited by 1

Color Image Compression using Mutual Spectral Information

..., M Porat - ... Engineers in Israel, 2006 IEEE 24th ..., 2006 - ieeexplore.ieee.org

Abstract-Most image compression algorithms tend to de-correlate the RGB color components as part of the compression process. Nevertheless, the high correlation between color components could be helpful if mutual spectral information is exploited in the compression process. In ...

Cited by 1

[PDF] Are polynomial models optimal for image interpolation?

[PDF] from eurasip.org..., M Porat - European Signal Processing Conf., Swizerland, 2008 - eurasip.org

1. INTRODUCTION Interpolation is needed in several image processing tasks such as rotation, translation, resizing and derivative evaluation. The underlying idea in current linear interpolation methods corresponds to regularity constraints that are imposed on the ...

Cited by 1

[PDF] Image interpolation using optimized color transforms

[PDF] from eurasip.org..., M Porat - Proc. EUSIPCO 2009 - eurasip.org

ABSTRACT In many demosaicing algorithms the red and the blue colors are reconstructed based on the interpolated green. Although additional information such as the statistics of the color components could be easily obtained, these algorithms are not optimized according to ...

Cited by 1

[PDF] A new method for multi-resolution texture segmentation using Gaussian Markov random fields

[PDF] from bilkent.edu.tr..., M Porat - 2005 - signal.ee.bilkent.edu.tr

ABSTRACT A new approach to multi-resolution modeling of images is introduced and applied to the task of semi-supervised texture segmentation using Gaussian Markov random fields (GMRFs). It is shown that traditional GMRF modeling of multi-resolution coefficients is ...

Cited by 1

[PDF] On a perceptual rate-distortion model for color image coding

[PDF] from eurasip.org..., M Porat - Proceedings of the 15th European Signal ..., 2007 - eurasip.org
ABSTRACT The Mean Square Error (MSE) is a common distortion measure used to assess image quality although it is not always justified when compared to the human observer. In this work we present a Rate-Distortion approach to color image compression based on ...

Cited by 1

[PDF] On Efficient Quantization for Image Recompression

[PDF] from eurasip.org..., M Porat - the Eusipco proceedings, Glasgow, 2009 - eurasip.org
It is well known that both the rate and the distortion of recompressed images depend primarily on the ratio between the new and the old quantization steps used. In this paper we provide a theoretical basis to this observation, and introduce an efficient algorithm to select the ...

Cited by 1

Approximating representation coefficients from non ideal samples

[PDF] from technion.ac.il..., H Kirshner, YC Eldar, M Porat - Acoustics, Speech and ..., 2006 - ieeexplore.ieee.org

ABSTRACT Many sources of information are of analogue or continuous-time nature. However, digital signal processing applications rely on discrete data. We consider the problem of approximating L2 inner products, ie, representation coefficients of a continuous-time ...

Cited by 1

[PDF] On the Statistics of Wide-Sense Markov Random Fields and its Application to Texture Interpolation

[PDF] from technion.ac.il..., M Porat - 2008 - webee.technion.ac.il
... Application to Texture Interpolation Shira Nemirovsky and Moshe Porat CCIT Report #682 January 2008 ... Shira Nemirovsky and Moshe Porat Department of Electrical Engineering Technion – Israel Institute of Technology Haifa 32000, Israel Abstract ...

Cited by 1

[PDF] On 3D Tracking for Echocardiographic Classification of Acute Myocardial Infarction

[PDF] from eurasip.org..., M Porat - 2007 - eurasip.org
ABSTRACT Accurate characterization of acute myocardial infarction (AMI) is crucial for the management of the patient. In this work we present a method for 3-dimensional (3D) velocity estimation and object tracking in sequences of ultrasound volume scans. Velocity estimation is based on ...

Cited by 1

Phasogram: image representation by localized phase (A)

..., M Porat - Journal of the Optical Society of America A, 1986 - adsabs.harvard.edu
Title: Phasogram: image representation by localized phase (A). Authors: Zeevi, Yehoshua Y.; Porat, Moshe. Publication: J. Opt. Soc. Am. A, vol. 3, page P115. Publication Date: 01/1986. Origin: OSA. Keywords: IMAGE RECONSTRUCTION ...

Cited by 1

[PDF] Image interpolation using consistent neighborhood correlations

..., M Porat - Proc. of ISTASC
Abstract: - We present a new approach to image interpolation using consistent relationships between adjacent pixels in an image. In the first stage, the localized relationships are learned from the input image. In the second stage, the relationships and the concluded governing ...

Cited by 1

In total: 1,147 citations according to Scholar (including self-citations).