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TITLE, AUTHOR, PUBLICATION YEAR IEEE SPS PUBLICATIONS	ABSTRACT	RANK IN IEEE TOP 100 (2012) DEC	NOV	OCT	SEPT	AUG	JUL	*N* TIMES IN TOP 100 (SINCE JAN 2011)
AN INTRODUCTION TO COMPRESSIVE SAMPLING Candes, E.J.; Wakin, M.B. *IEEE Signal Processing Magazine* vol. 25, no. 2, Mar. 2008, pp. 21–30	This article surveys the theory of compressive sampling, also known as compressed sensing or CS, a novel sensing/sampling paradigm that goes against the common wisdom in data acquisition.	14	**13**	31	48	58	48	24
SCALING UP MIMO: OPPORTUNITIES AND CHALLENGES WITH VERY LARGE ARRAYS Rusek, F.; Persson, D.; Lau, B.K.; Larsson, E.G.; Marzetta, T.L.; Edfors, O.; Tufvesson, F. *IEEE Signal Processing Magazine* vol. 30, no. 1, 2013, pp. 40–60	The more antennas the transmitter/receiver is equipped with, and the more degrees of freedom that the propagation channel can provide, the better the performance in terms of data rate or link reliability. This article quantifies the reliability and achievable rates.	**36**						1
A TUTORIAL ON PARTICLE FILTERS FOR ONLINE NONLINEAR/NON-GAUSSIAN-BAYESIAN TRACKING Arulampalam, M.S.; Maskell, S.; Gordon, N.; Clapp, T. *IEEE Transactions on Signal Processing* vol. 50, no. 2, 2002, pp. 174–188	This paper reviews optimal and suboptimal Bayesian algorithms for nonlinear/non-Gaussian tracking problems, with a focus on particle filters. Variants of the particle filter are introduced within a framework of the sequential importance sampling (SIS) algorithm and compared with the standard EKF.	49	**28**	43	97	69	89	23
IMAGE QUALITY ASSESSMENT: FROM ERROR VISIBILITY TO STRUCTURAL SIMILARITY Wang, Z.; Bovik, A.C.; Sheikh, H.R.; Simoncelli, E.P. *IEEE Transactions on Image Processing* vol. 13, no. 4. 2004, pp. 600–612	This paper introduces a framework for quality assessment based on the degradation of structural information. Within this framework a structure similarity index is developed and evaluated. MATLAB code available.	**62**	74		87			4
NO-REFERENCE IMAGE QUALITY ASSESSMENT USING VISUAL CODE BOOKS Peng Ye; Doermann, D. *IEEE Transactions on Image Processing* vol. 21, no. 7, July 2012, pp. 3129–3138	A visual code book consisting of Gabor-filter-based local features is used to capture complex statistics of a natural image. The code book encodes statistics by quantizing the feature space and accumulating histograms of patch appearances. The method is comparable to state-of-the-art general-purpose no reference image quality assessment (NR-IQA) methods and outperforms the full-reference image quality metrics.	**76**						2

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TITLE, AUTHOR, PUBLICATION YEAR IEEE SPS PUBLICATIONS	ABSTRACT	RANK IN IEEE TOP 100 (2012)						*N* TIMES IN TOP 100 (SINCE JAN 2011)
		DEC	NOV	OCT	SEPT	AUG	JUL	
GEOMETRIC FLOW APPROACH FOR REGION-BASED IMAGE SEGMENTATION Ye, J.; Xu, G. *IEEE Transactions on Image Processing* vol. 21, no. 12, 2012, pp. 4,735–4,745	This paper considers the minimal partition problem for segmentation of images and propose a geometric flow-based formulation. The model uses B-spline basis functions and evolves the control points to map piecewise-constant regions toward objects in the image. Efficient computation is also considered.	**84**						1
HASBE: A HIERARCHICAL ATTRIBUTE-BASED SOLUTION FOR FLEXIBLE AND SCALABLE ACCESS CONTROL IN CLOUD COMPUTING Wan, Z.; Liu, J.; Deng, R.H. *IEEE Transactions on Information Forensics and Security* vol. 7, no. 2, 2012, pp. 743–754	To realize scalable, flexible, and fine-grained access control of outsourced data in cloud computing, the authors propose hierarchical attribute-set-based encryption (HASBE) by extending ciphertext-policy attribute-set-based encryption (ASBE) with a hierarchical structure of users.	92			92	46	**38**	4
ADVANCES IN COGNITIVE RADIO NETWORKS: A SURVEY Wang, B.; Liu, K.J.R. *IEEE Journal of Selected Topics in Signal Processing* vol. 5, no. 1, 2011, pp. 5–23	This paper surveys recent advances in research related to cognitive radios. The fundamentals of cognitive radio technology, architecture of a cognitive radio network and its applications are first introduced.		**89**			100		14
UNDERSTANDING THE BASIS OF THE KALMAN FILTER VIA A SIMPLE AND INTUITIVE DERIVATION Faragher, R. *IEEE Signal Processing Magazine* vol. 29, no. 5, 2012, pp. 128–132	This article provides a simple derivation of the Kalman filter, with the aim of teaching this useful tool to students from disciplines that do not require a strong mathematical background.			42	**31**	44		3
SPATIALLY ADAPTIVE BLOCK-BASED SUPER-RESOLUTION Su, H.; Tang, L.; Wu, Y.; Tretter, D.; Zhou, J. *IEEE Transactions on Image Processing* vol. 21, no. 3, 2012, pp. 1,031–1,045	This paper integrates a high-level image classification task and a lower-level super-resolution process, which incorporates reconstruction-based super-resolution algorithms, single-image enhancement, and image/video classification into a single framework. The high-resolution image plane is divided into adaptive-sized blocks, and different suitable super-resolution algorithms are automatically selected for the blocks.			**44**				1
SHADOW REMOVAL USING BILATERAL FILTERING Yang, Q.; Tan, K.-H.; Ahuja, N. *IEEE Transactions on Image Processing* vol. 21, no. 10, 2012, pp. 4,361–4,368	This paper presents a shadow removal method using a single input image. First a two-dimensional (2-D) intrinsic image is created from a RGB camera image based on chromaticity. Then a three-dimensional (3-D) intrinsic image is recovered based on bilateral filtering and the 2-D intrinsic image. The luminance contrast in regions with similar surface reflectance due to geometry and illumination variances is reduced in the derived 3-D image, while the contrast in regions with different surface reflectance is preserved.			**79**				1
COMPRESSIVE SENSING [LECTURE NOTES] Baraniuk, R.G. *IEEE Signal Processing Magazine* vol. 24, no. 4, 2007, pp. 118–121	This lecture note presents a new method to capture and represent compressible signals at a rate significantly below the Nyquist rate. This method, called compressive sensing, employs nonadaptive linear projections that preserve the structure of the signal; the signal is then reconstructed from these projections using an optimization process.			**82**				1

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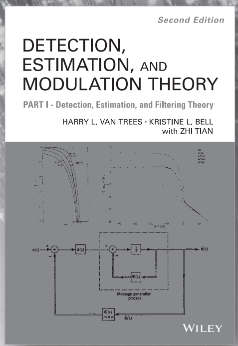

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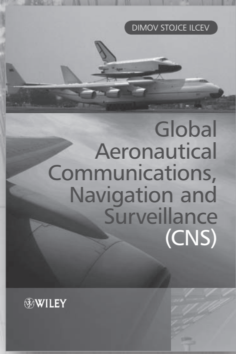

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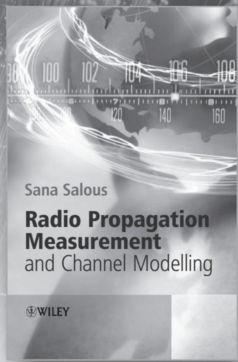

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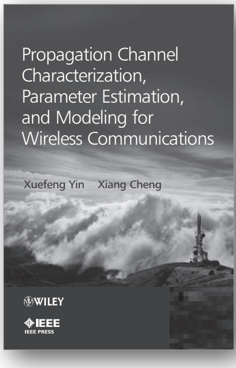

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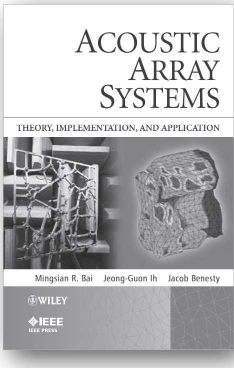

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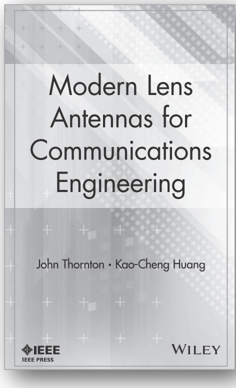

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