Stanley R Rotman

List of Publications by Year
in descending order

120 papers	1,297 citations	361045 20 h-index	454577 30 g-index
122 all docs	122 docs citations	122 times ranked	734 citing authors

#	Article	IF	Citations
1	Mapping dune dynamics by InSAR coherence. Earth Surface Processes and Landforms, 2018, 43, 1229-1240.	1.2	24
2	Stationary Covariance Matrices for Hyperspectral Point Target Detection. , 2018, , .		0
3	Hyperspectral Target Detection Using Tree-Structured Probabilistic Graphical Model and Semi-Parametric Density Estimation. , 2018, , .		1
4	Point Target Detection Using Nonnegative Matrix Factorization. , 2018, , .		0
5	Examining Change Detection Methods For Hyperspectral Data. , 2018, , .		0
6	Hyperspectral Target Detection Using Semi- and Non- Parametric Methods. , 2018, , .		1
7	Combining TerraSAR-X and Landsat Images for Emergency Response in Urban Environments. Remote Sensing, 2018, 10, 802.	1.8	10
8	Performance of target detection algorithm in compressive sensing miniature ultraspectral imaging compressed sensing system. Optical Engineering, 2017, 56, 041312.	0.5	10
9	Background characterization for subpixel target detection. , 2017, , .		0
10	Evaluating hyperspectral imaging change detection methods. , 2017, , .		2
11	Target detection with compressive sensing hyperspectral images. , 2017, , .		2
12	Automation and speed-up of the RSC N-FINDR algorithm for Endmember extraction. , 2016, , .		0
13	Improved covariance matrix for target detection in hyperspectral imaging. , 2016, , .		0
14	Using improved outlier estimation for hyperspectral target detection. , 2016, , .		0
15	Analysis of hyperspectral anomaly change detection algorithms. , 2016, , .		1
16	Hyperspectral Band Selection for Anomaly Detection: The Role of Data Gaussianity. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 732-743.	2.3	18
17	Parametric temporal compression of infrared imagery sequences containing a slow-moving point target. Applied Optics, 2016, 55, 1151.	2.1	6
18	Classification of synthetic aperture radar images using Markov Random Field and textural features. , 2014, , .		0

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19	Multi-pixel anomaly detection in multi-temporal thermography. , 2014, , .		0
20	Compression of Hyperspectral Images Containing a Subpixel Target. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 2246-2255.	2.3	21
21	Advantages and limitations of segmentation for point target detection in hyperspectral imagery. , 2014, , .		4
22	Anomaly detection in multi-temporal infrared thermography. , 2014, , .		0
23	Producing a color target acquisition metric. Proceedings of SPIE, 2013, , .	0.8	0
24	Geometrical interpretation of the adaptive coherence estimator for hyperspectral target detection. , 2013, , .		1
25	Improving variance estimation ratio score calculation for slow moving point targets detection in infrared imagery sequences. , 2013, , .		1
26	Compression of infrared imagery sequences containing a slow-moving point target, part II. Applied Optics, 2013, 52, 1646.	0.9	2
27	Persistent scatterers detection in open area in high resolution SAR imagery — Case study: Sendai, Japan. , 2013, , .		1
28	Radar clutter as an indicator for vegetation classification using a single dual polarimetric TSX-1 image. , 2013, , .		1
29	Evaluating Subpixel Target Detection Algorithms in Hyperspectral Imagery. Journal of Electrical and Computer Engineering, 2012, 2012, 1-15.	0.6	33
30	Target Detection Using Nonsingular Approximations for a Singular Covariance Matrix. Journal of Electrical and Computer Engineering, 2012, 2012, 1-7.	0.6	1
31	Fusion filter for hyperspectral target detection. , 2012, , .		0
32	Band selection for gas detection in hyperspectral images. , 2012, , .		8
33	Compression of hyperspectral images containing a sub-pixel target. , 2012, , .		2
34	Temporal and spatial compression of infrared imagery sequences containing slow moving point targets. , 2012, , .		1
35	Anomaly detection using an adaptive algorithm for estimating mixtures of backgrounds in hyperspectral images. , 2012, , .		2
36	Anomaly detection in polarimetric radar images. International Journal of Remote Sensing, 2012, 33, 1164-1189.	1.3	4

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37	Nonsingular approximations for a singular covariance matrix. , 2012, , .		3
38	Detection of anomalous activity in hyperspectral imaging: metrics for evaluating algorithms. Proceedings of SPIE, 2012, , .	0.8	0
39	Identifying low reflection amplitude and low level phase noise points for permanent scatterer (PS) interferometry. , 2011, , .		2
40	Spatial and temporal point tracking in real hyperspectral images. Eurasip Journal on Advances in Signal Processing, 2011, 2011, .	1.0	6
41	Sub-pixel target detection using local spatial information in hyperspectral images. , 2011, , .		1
42	Iterative approach for gas detection and identification. , 2010, , .		1
43	Compression of infrared imagery sequences containing a slow-moving point target. Applied Optics, 2010, 49, 3798.	2.1	3
44	Anomaly detection in non-stationary backgrounds. , 2010, , .		19
45	Anomaly detection in multi-polarimetric radar images. , 2008, , .		2
46	Detection and identification of effluent gases by long wave infrared (LWIR) hyperspectral images. , 2008, , .		5
47	Coping with mixtures of backgrounds in a sliding dual window anomaly detection algorithm. Proceedings of SPIE, 2008, , .	0.8	4
48	Detecting anomalous objects in hyperspectral data using segmentation. Proceedings of SPIE, 2008, , .	0.8	1
49	Edge impact on subpixel target detection in hyperspectral imagery. , 2008, , .		0
50	Wideband Antenna Patterns and Impulse Response of Broadband RF Phased Arrays With RF and Photonic Beamforming. IEEE Transactions on Antennas and Propagation, 2007, 55, 36-44.	3.1	25
51	Comparing Multispectral Image Fusion Methods for a Target Detection Task. , 2006, , .		10
52	Temporal target tracking in hyperspectral images. Optical Engineering, 2006, 45, 126201.	0.5	29
53	Anomaly Gas Remote Sensing and Tracking Using a Field-Portable Imaging Thermal Radiometric Spectrometer. , 2006, , .		1
54	Point Target Detection in Hyper-Spectral Images. , 2006, , .		0

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55	Combining CFAR with anomaly detection at hyperspectral images. , 2005, , .		0
56	A three-stage approach to large-target acquisition in spectral images. , 2005, , .		0
57	Segmentation of multi-dimensional infrared imagery from histograms. Infrared Physics and Technology, 2004, 45, 191-200.	1.3	17
58	Refining the histogram-based segmentation of hyperspectral data. , 2004, 5546, 334.		3
59	Segmentation and classification with point target detection. , 2004, 5617, 103.		1
60	Improved filter for point target detection in multidimensional imagery. , 2004, 5159, 32.		6
61	Issues in segmenting hyperspectral imagery from histograms. , 2004, , .		1
62	Automatic clustering of multidimensional data (ACMD) applied to hyperspectral images. , 2004, , .		0
63	Multipixel anomaly detection in noisy multispectral images. , 2004, 5546, 390.		0
64	Point target detection in segmented images. , 2004, 5546, 149.		5
65	Effects of image restoration on target acquisition. Optical Engineering, 2003, 42, 534.	0.5	14
66	Point target detection. , 2003, 4820, 671.		7
67	Segmentations of hyperspectral imagery: techniques and applications. , 2003, , .		4
68	Algorithms for point target detection in hyperspectral imagery. , 2002, , .		18
69	Segmentation of hyperspectral images from the histograms of principle components. , 2002, , .		15
70	Development of AIIBVI Semiconductors Doped with Cr for IR Laser Application. Physica Status Solidi (B): Basic Research, 2002, 229, 395-398.	0.7	15
71	<title>Relating geophysical parameters to the infrared clutter content of images for target acquisition</title>. , 2001, 4370, 134.		0
72	<title>Clutter metrics for predicting human target acquisition performance</title>. , 2001, , .		7

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73	Dynamic programming algorithm for point target detection: practical parameters for DPA. , 2001, 4473, 96.		13
74	Analyzing the effect of imagery wavelength on the agreement between various image metrics and human detection performance of targets embedded in natural images. Optical Engineering, 2001, 40, 1877.	0.5	8
75	<title>Effects of image restoration on target acquisition</title>. , 2001, , .		0
76	<title>Effect of sampling on target detection</title>. , 2001, , .		0
77	Influence of severe vibrations on the visual perception of video sequences. , 2000, , .		0
78	Analyzing the improving effect of modeled histogram enhancement on human target detection performance of infrared images. Infrared Physics and Technology, 2000, 41, 163-168.	1.3	15
79	Evaluation of human detection performance of targets embedded in natural and enhanced infrared images using image metrics. Optical Engineering, 2000, 39, 885.	0.5	32
80	Evaluating human detection performance of targets and false alarms, using a statistical texture image metric. Optical Engineering, 2000, 39, 2285.	0.5	31
81	Contrasted statistical processing algorithm for obtaining improved target detection performances in infrared cluttered environment. Optical Engineering, 2000, 39, 2609.	0.5	9
82	Impurity local phonon nonradiative quenching of Yb/sup 3+/ fluorescence in ytterbium-doped silicate glasses. IEEE Journal of Quantum Electronics, 2000, 36, 1000-1007.	1.0	32
83	Evaluating the effect of infrared image enhancement on human target detection performance and image quality judgment. Optical Engineering, 1999, 38, 1433.	0.5	18
84	Some optical properties of Cr4+-doped crystals. Optical Materials, 1999, 13, 117-127.	1.7	49
85	Studies of the spectroscopic behavior of Cr+3:LiCAF pumped by a solid-state dye laser. Optical Materials, 1999, 13, 129-133.	1.7	4
86	Bandwidth maximization for satellite laser communication. IEEE Transactions on Aerospace and Electronic Systems, 1999, 35, 675-682.	2.6	7
87	Optimum transmitter optics aperture for satellite optical communication. IEEE Transactions on Aerospace and Electronic Systems, 1998, 34, 590-596.	2.6	22
88	Experimental comparison of three target acquisition models. Optical Engineering, 1998, 37, 1902.	0.5	12
89	Using satellite vibrations to improve performance of free-space satellite laser communication. , 1998, , .		0
90	Bandwidth maximization for satellite laser communication. , 1998, , .		0

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91	Performance limitations of free-space optical communication satellite networks due to vibrations: direct detection digital mode. Optical Engineering, 1997, 36, 3148.	0.5	25
92	<title>Experimental comparison of three target acquisition models</title>. , 1997, , .		2
93	Performance limitations of free-space optical communication satellite networks due to vibrations: direct-detection digital mode. , 1997, , .		6
94	Fast energy transfer between subsites in wide-bandgap luminescent materials. , 1997, 3110, 202.		0
95	<title>Relative effects of blur and noise on target acquisition: the advisability of image restoration</title>. , 1997, 3128, 120.		2
96	Image restoration for target detection: will it help?. , 1997, 3110, 44.		0
97	Solar-pumped solid state laser program. , 1997, , .		27
98	Practical models for energy transfer between ions in solids. Optical Materials, 1996, 5, 1-33.	1.7	15
99	Textural metrics for clutter affecting human target acquisition. Infrared Physics and Technology, 1996, 37, 667-674.	1.3	28
100	Incorporation of atmospheric blurring effects in target acquisition modeling of thermal images. Infrared Physics and Technology, 1995, 36, 551-564.	1.3	9
101	Thermal image target acquisition probabilities in the presence of vibrations. Infrared Physics and Technology, 1995, 36, 691-702.	1.3	3
102	Target acquisition modeling of forward-motion considerations for airborne reconnaissance over hostile territory. Optical Engineering, 1994, 33, 3106.	0.5	9
103	Clutter metrics for target detection systems. IEEE Transactions on Aerospace and Electronic Systems, 1994, 30, 81-91.	2.6	39
104	Defect–property correlations in garnet crystals. VI. The electrical conductivity, defect structure, and optical properties of luminescent calcium and cerium–doped yttrium aluminum garnet. Journal of Applied Physics, 1992, 71, 1209-1214.	1.1	70
105	Texture classification using the cortex transform. Graphical Models, 1992, 54, 329-339.	0.7	15
106	Modeling human search and target acquisition performance: 3. target detection in the presence of obscurants. Optical Engineering, 1991, 30, 824.	0.5	24
107	Modeling non-radiative energy transfer with multiple mechanisms in solid-state materials. Chemical Physics Letters, 1990, 173, 349-353.	1.2	14
108	Comment on â€˜â€˜Optical and electron paramagnetic resonance studies of Fe impurities in yttrium aluminum garnet crystalsâ€™â€™. Physical Review B, 1990, 41, 791-792.	1.1	9

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109	Analysis of neodymium-to-erbium energy transfer in yttrium aluminum garnet with a nonuniform-distribution model. Optics Letters, 1990, 15, 230.	1.7	13
110	Nonradiative energy transfer in Nd:YAG—evidence for the correlated placement of ions. Applied Physics Letters, 1989, 54, 2053-2055.	1.5	22
111	Energy transfer by the exchange interaction in non-uniform codoped solid-state crystals. Chemical Physics Letters, 1989, 163, 437-442.	1.2	14
112	Defect-property correlations in garnet crystals. V. Energy transfer in luminescent yttrium aluminum—yttrium iron garnet solid solutions. Journal of Applied Physics, 1989, 66, 3207-3210.	1.1	41
113	Defect-property correlations in garnet crystals. IV. The optical properties of nickel-doped yttrium aluminum garnet. Journal of Applied Physics, 1989, 66, 1366-1369.	1.1	14
114	Non-radiative energy transfer in non-uniform codoped laser crystals. Chemical Physics Letters, 1988, 152, 311-318.	1.2	53
115	Defect-property correlations in garnet crystals. III. The electrical conductivity and defect structure of luminescent nickel-doped yttrium aluminum garnet. Journal of Applied Physics, 1987, 62, 1305-1312.	1.1	30
116	Defect property correlations in garnet crystals. II. Electrical conductivity and optical absorption in Ca3Al2Ge3O12. Journal of Applied Physics, 1985, 57, 5320-5324.	1.1	17
117	Defect luminescence in cerium-doped yttrium aluminum garnet. Journal of Applied Physics, 1985, 58, 522-525.	1.1	57
118	Optical studies of cerium doped yttrium aluminum garnet single crystals. Applied Physics Letters, 1984, 44, 1038-1040.	1.5	85
119	Analysis of Multiple-Angle Microwave Observations of Snow and Ice Using Cluster-Analysis Techniques. Journal of Glaciology, 1981, 27, 89-97.	1.1	7
120	Analysis of Multiple-Angle Microwave Observations of Snow and Ice Using Cluster-Analysis Techniques. Journal of Glaciology, 1981, 27, 89-97.	1.1	1