

Stanley R Rotman

List of Publications by Year in descending order

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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	Optical studies of cerium doped yttrium aluminum garnet single crystals. Applied Physics Letters, 1984, 44, 1038-1040.	1.5	85
2	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
3	Defect luminescence in cerium-doped yttrium aluminum garnet. Journal of Applied Physics, 1985, 58, 522-525.	1.1	57
4	Non-radiative energy transfer in non-uniform codoped laser crystals. Chemical Physics Letters, 1988, 152, 311-318.	1.2	53
5	Some optical properties of Cr ⁴⁺ -doped crystals. Optical Materials, 1999, 13, 117-127.	1.7	49
6	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
7	Clutter metrics for target detection systems. IEEE Transactions on Aerospace and Electronic Systems, 1994, 30, 81-91.	2.6	39
8	Evaluating Subpixel Target Detection Algorithms in Hyperspectral Imagery. Journal of Electrical and Computer Engineering, 2012, 2012, 1-15.	0.6	33
9	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
10	Impurity local phonon nonradiative quenching of Yb ³⁺ fluorescence in ytterbium-doped silicate glasses. IEEE Journal of Quantum Electronics, 2000, 36, 1000-1007.	1.0	32
11	Evaluating human detection performance of targets and false alarms, using a statistical texture image metric. Optical Engineering, 2000, 39, 2285.	0.5	31
12	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
13	Temporal target tracking in hyperspectral images. Optical Engineering, 2006, 45, 126201.	0.5	29
14	Textural metrics for clutter affecting human target acquisition. Infrared Physics and Technology, 1996, 37, 667-674.	1.3	28
15	Solar-pumped solid state laser program. , 1997, , .		27
16	Performance limitations of free-space optical communication satellite networks due to vibrations: direct detection digital mode. Optical Engineering, 1997, 36, 3148.	0.5	25
17	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
18	Modeling human search and target acquisition performance: 3. target detection in the presence of obscurants. Optical Engineering, 1991, 30, 824.	0.5	24

#	ARTICLE	IF	CITATIONS
19	Mapping dune dynamics by InSAR coherence. <i>Earth Surface Processes and Landforms</i> , 2018, 43, 1229-1240.	1.2	24
20	Nonradiative energy transfer in Nd:YAG evidence for the correlated placement of ions. <i>Applied Physics Letters</i> , 1989, 54, 2053-2055.	1.5	22
21	Optimum transmitter optics aperture for satellite optical communication. <i>IEEE Transactions on Aerospace and Electronic Systems</i> , 1998, 34, 590-596.	2.6	22
22	Compression of Hyperspectral Images Containing a Subpixel Target. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2014, 7, 2246-2255.	2.3	21
23	Anomaly detection in non-stationary backgrounds. , 2010, , .		19
24	Evaluating the effect of infrared image enhancement on human target detection performance and image quality judgment. <i>Optical Engineering</i> , 1999, 38, 1433.	0.5	18
25	Algorithms for point target detection in hyperspectral imagery. , 2002, , .		18
26	Hyperspectral Band Selection for Anomaly Detection: The Role of Data Gaussianity. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2016, 9, 732-743.	2.3	18
27	Defect property correlations in garnet crystals. II. Electrical conductivity and optical absorption in Ca ₃ Al ₂ Ge ₃ O ₁₂ . <i>Journal of Applied Physics</i> , 1985, 57, 5320-5324.	1.1	17
28	Segmentation of multi-dimensional infrared imagery from histograms. <i>Infrared Physics and Technology</i> , 2004, 45, 191-200.	1.3	17
29	Texture classification using the cortex transform. <i>Graphical Models</i> , 1992, 54, 329-339.	0.7	15
30	Practical models for energy transfer between ions in solids. <i>Optical Materials</i> , 1996, 5, 1-33.	1.7	15
31	Analyzing the improving effect of modeled histogram enhancement on human target detection performance of infrared images. <i>Infrared Physics and Technology</i> , 2000, 41, 163-168.	1.3	15
32	Segmentation of hyperspectral images from the histograms of principle components. , 2002, , .		15
33	Development of AlIBVI Semiconductors Doped with Cr for IR Laser Application. <i>Physica Status Solidi (B): Basic Research</i> , 2002, 229, 395-398.	0.7	15
34	Energy transfer by the exchange interaction in non-uniform codoped solid-state crystals. <i>Chemical Physics Letters</i> , 1989, 163, 437-442.	1.2	14
35	Defect property correlations in garnet crystals. IV. The optical properties of nickel doped yttrium aluminum garnet. <i>Journal of Applied Physics</i> , 1989, 66, 1366-1369.	1.1	14
36	Modeling non-radiative energy transfer with multiple mechanisms in solid-state materials. <i>Chemical Physics Letters</i> , 1990, 173, 349-353.	1.2	14

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37	Effects of image restoration on target acquisition. Optical Engineering, 2003, 42, 534.	0.5	14
38	Analysis of neodymium-to-erbium energy transfer in yttrium aluminum garnet with a nonuniform-distribution model. Optics Letters, 1990, 15, 230.	1.7	13
39	Dynamic programming algorithm for point target detection: practical parameters for DPA. , 2001, 4473, 96.		13
40	Experimental comparison of three target acquisition models. Optical Engineering, 1998, 37, 1902.	0.5	12
41	Comparing Multispectral Image Fusion Methods for a Target Detection Task. , 2006, , .		10
42	Performance of target detection algorithm in compressive sensing miniature ultraspectral imaging compressed sensing system. Optical Engineering, 2017, 56, 041312.	0.5	10
43	Combining TerraSAR-X and Landsat Images for Emergency Response in Urban Environments. Remote Sensing, 2018, 10, 802.	1.8	10
44	Comment on "Optical and electron paramagnetic resonance studies of Fe impurities in yttrium aluminum garnet crystals". Physical Review B, 1990, 41, 791-792.	1.1	9
45	Target acquisition modeling of forward-motion considerations for airborne reconnaissance over hostile territory. Optical Engineering, 1994, 33, 3106.	0.5	9
46	Incorporation of atmospheric blurring effects in target acquisition modeling of thermal images. Infrared Physics and Technology, 1995, 36, 551-564.	1.3	9
47	Contrasted statistical processing algorithm for obtaining improved target detection performances in infrared cluttered environment. Optical Engineering, 2000, 39, 2609.	0.5	9
48	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
49	Band selection for gas detection in hyperspectral images. , 2012, , .		8
50	Analysis of Multiple-Angle Microwave Observations of Snow and Ice Using Cluster-Analysis Techniques. Journal of Glaciology, 1981, 27, 89-97.	1.1	7
51	Bandwidth maximization for satellite laser communication. IEEE Transactions on Aerospace and Electronic Systems, 1999, 35, 675-682.	2.6	7
52	<title>Clutter metrics for predicting human target acquisition performance</title>. , 2001, , .		7
53	Point target detection. , 2003, 4820, 671.		7
54	Performance limitations of free-space optical communication satellite networks due to vibrations: direct-detection digital mode. , 1997, , .		6

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55	Improved filter for point target detection in multidimensional imagery. , 2004, 5159, 32.		6
56	Spatial and temporal point tracking in real hyperspectral images. Eurasip Journal on Advances in Signal Processing, 2011, 2011, .	1.0	6
57	Parametric temporal compression of infrared imagery sequences containing a slow-moving point target. Applied Optics, 2016, 55, 1151.	2.1	6
58	Point target detection in segmented images. , 2004, 5546, 149.		5
59	Detection and identification of effluent gases by long wave infrared (LWIR) hyperspectral images. , 2008, , .		5
60	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
61	Segmentations of hyperspectral imagery: techniques and applications. , 2003, , .		4
62	Coping with mixtures of backgrounds in a sliding dual window anomaly detection algorithm. Proceedings of SPIE, 2008, , .	0.8	4
63	Anomaly detection in polarimetric radar images. International Journal of Remote Sensing, 2012, 33, 1164-1189.	1.3	4
64	Advantages and limitations of segmentation for point target detection in hyperspectral imagery. , 2014, , .		4
65	Thermal image target acquisition probabilities in the presence of vibrations. Infrared Physics and Technology, 1995, 36, 691-702.	1.3	3
66	Refining the histogram-based segmentation of hyperspectral data. , 2004, 5546, 334.		3
67	Compression of infrared imagery sequences containing a slow-moving point target. Applied Optics, 2010, 49, 3798.	2.1	3
68	Nonsingular approximations for a singular covariance matrix. , 2012, , .		3
69	<title>Experimental comparison of three target acquisition models</title>. , 1997, , .		2
70	<title>Relative effects of blur and noise on target acquisition: the advisability of image restoration</title>. , 1997, 3128, 120.		2
71	Anomaly detection in multi-polarimetric radar images. , 2008, , .		2
72	Identifying low reflection amplitude and low level phase noise points for permanent scatterer (PS) interferometry. , 2011, , .		2

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73	Compression of hyperspectral images containing a sub-pixel target. , 2012, , .		2
74	Anomaly detection using an adaptive algorithm for estimating mixtures of backgrounds in hyperspectral images. , 2012, , .		2
75	Compression of infrared imagery sequences containing a slow-moving point target, part II. Applied Optics, 2013, 52, 1646.	0.9	2
76	Evaluating hyperspectral imaging change detection methods. , 2017, , .		2
77	Target detection with compressive sensing hyperspectral images. , 2017, , .		2
78	Segmentation and classification with point target detection. , 2004, 5617, 103.		1
79	Issues in segmenting hyperspectral imagery from histograms. , 2004, , .		1
80	Anomaly Gas Remote Sensing and Tracking Using a Field-Portable Imaging Thermal Radiometric Spectrometer. , 2006, , .		1
81	Detecting anomalous objects in hyperspectral data using segmentation. Proceedings of SPIE, 2008, , .	0.8	1
82	Iterative approach for gas detection and identification. , 2010, , .		1
83	Sub-pixel target detection using local spatial information in hyperspectral images. , 2011, , .		1
84	Target Detection Using Nonsingular Approximations for a Singular Covariance Matrix. Journal of Electrical and Computer Engineering, 2012, 2012, 1-7.	0.6	1
85	Temporal and spatial compression of infrared imagery sequences containing slow moving point targets. , 2012, , .		1
86	Geometrical interpretation of the adaptive coherence estimator for hyperspectral target detection. , 2013, , .		1
87	Improving variance estimation ratio score calculation for slow moving point targets detection in infrared imagery sequences. , 2013, , .		1
88	Persistent scatterers detection in open area in high resolution SAR imagery — Case study: Sendai, Japan. , 2013, , .		1
89	Radar clutter as an indicator for vegetation classification using a single dual polarimetric TSX-1 image. , 2013, , .		1
90	Analysis of hyperspectral anomaly change detection algorithms. , 2016, , .		1

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91	Hyperspectral Target Detection Using Tree-Structured Probabilistic Graphical Model and Semi-Parametric Density Estimation. , 2018, , .		1
92	Hyperspectral Target Detection Using Semi- and Non- Parametric Methods. , 2018, , .		1
93	Analysis of Multiple-Angle Microwave Observations of Snow and Ice Using Cluster-Analysis Techniques. Journal of Glaciology, 1981, 27, 89-97.	1.1	1
94	Fast energy transfer between subsites in wide-bandgap luminescent materials. , 1997, 3110, 202.		0
95	Image restoration for target detection: will it help?. , 1997, 3110, 44.		0
96	Using satellite vibrations to improve performance of free-space satellite laser communication. , 1998, , .		0
97	Bandwidth maximization for satellite laser communication. , 1998, , .		0
98	Influence of severe vibrations on the visual perception of video sequences. , 2000, , .		0
99	<title>Relating geophysical parameters to the infrared clutter content of images for target acquisition</title>. , 2001, 4370, 134.		0
100	Automatic clustering of multidimensional data (ACMD) applied to hyperspectral images. , 2004, , .		0
101	Multipixel anomaly detection in noisy multispectral images. , 2004, 5546, 390.		0
102	Combining CFAR with anomaly detection at hyperspectral images. , 2005, , .		0
103	A three-stage approach to large-target acquisition in spectral images. , 2005, , .		0
104	Point Target Detection in Hyper-Spectral Images. , 2006, , .		0
105	Edge impact on subpixel target detection in hyperspectral imagery. , 2008, , .		0
106	Fusion filter for hyperspectral target detection. , 2012, , .		0
107	Detection of anomalous activity in hyperspectral imaging: metrics for evaluating algorithms. Proceedings of SPIE, 2012, , .	0.8	0
108	Producing a color target acquisition metric. Proceedings of SPIE, 2013, , .	0.8	0

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109	Classification of synthetic aperture radar images using Markov Random Field and textural features. , 2014, , .		0
110	Multi-pixel anomaly detection in multi-temporal thermography. , 2014, , .		0
111	Anomaly detection in multi-temporal infrared thermography. , 2014, , .		0
112	Automation and speed-up of the RSC N-FINDR algorithm for Endmember extraction. , 2016, , .		0
113	Improved covariance matrix for target detection in hyperspectral imaging. , 2016, , .		0
114	Using improved outlier estimation for hyperspectral target detection. , 2016, , .		0
115	Background characterization for subpixel target detection. , 2017, , .		0
116	Stationary Covariance Matrices for Hyperspectral Point Target Detection. , 2018, , .		0
117	Point Target Detection Using Nonnegative Matrix Factorization. , 2018, , .		0
118	Examining Change Detection Methods For Hyperspectral Data. , 2018, , .		0
119	<title>Effects of image restoration on target acquisition</title>. , 2001, , .		0
120	<title>Effect of sampling on target detection</title>. , 2001, , .		0