Hiroyuki Kudo

List of Publications by Year
in descending order

161 papers	2,415 citations	279487 23 h-index	233125 45 g-index
163 all docs	163 docs citations	163 times ranked	1189 citing authors

#	Article	IF	Citations
1	Image reconstruction from fan-beam projections on less than a short scan. Physics in Medicine and Biology, 2002, 47, 2525-2546.	1.6	206
2	Tiny *a priori* knowledge solves the interior problem in computed tomography. Physics in Medicine and Biology, 2008, 53, 2207-2231.	1.6	198
3	Truncated Hilbert transform and image reconstruction from limited tomographic data. Inverse Problems, 2006, 22, 1037-1053.	1.0	179
4	A solution to the long-object problem in helical cone-beam tomography. Physics in Medicine and Biology, 2000, 45, 623-643.	1.6	144
5	Cone-beam filtered-backprojection algorithm for truncated helical data. Physics in Medicine and Biology, 1998, 43, 2885-2909.	1.6	136
6	Derivation and implementation of a cone-beam reconstruction algorithm for nonplanar orbits. IEEE Transactions on Medical Imaging, 1994, 13, 196-211.	5.4	118
7	Solving the interior problem of computed tomography using *a priori* knowledge. Inverse Problems, 2008, 24, 065001.	1.0	112
8	An accurate iterative reconstruction algorithm for sparse objects: application to 3D blood vessel reconstruction from a limited number of projections. Physics in Medicine and Biology, 2002, 47, 2599-2609.	1.6	107
9	Subset-dependent relaxation in block-iterative algorithms for image reconstruction in emission tomography. Physics in Medicine and Biology, 2003, 48, 1405-1422.	1.6	99
10	Investigation of saddle trajectories for cardiac CT imaging in cone-beam geometry. Physics in Medicine and Biology, 2004, 49, 2317-2336.	1.6	71
11	Quasi-exact filtered backprojection algorithm for long-object problem in helical cone-beam tomography. IEEE Transactions on Medical Imaging, 2000, 19, 902-921.	5.4	59
12	Sinogram recovery with the method of convex projections for limited-data reconstruction in computed tomography. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1991, 8, 1148.	0.8	56
13	Feasible cone beam scanning methods for exact reconstruction in three-dimensional tomography. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1990, 7, 2169.	0.8	48
14	Image reconstruction for sparse-view CT and interior CT-introduction to compressed sensing and differentiated backprojection. Quantitative Imaging in Medicine and Surgery, 2013, 3, 147-61.	1.1	48
15	Exact and approximate algorithms for helical cone-beam CT. Physics in Medicine and Biology, 2004, 49, 2913-2931.	1.6	40
16	Optimal relaxation parameters of DRAMA (dynamic RAMLA) aiming at one-pass image reconstruction for 3D-PET. Physics in Medicine and Biology, 2010, 55, 2917-2939.	1.6	35
17	Statistical image reconstruction from limited projection data with intensity priors. Physics in Medicine and Biology, 2012, 57, 2039-2061.	1.6	32
18	Exact cone beam reconstruction for a saddle trajectory. Physics in Medicine and Biology, 2006, 51, 1157-1172.	1.6	30

#	Article	IF	Citations
19	Enabling photon counting clinical X-ray CT. , 2009, , .		30
20	Computerized breast cancer analysis system using three stage semi-supervised learning method. Computer Methods and Programs in Biomedicine, 2016, 135, 77-88.	2.6	28
21	A new reconstruction strategy for image improvement in pinhole SPECT. European Journal of Nuclear Medicine and Molecular Imaging, 2004, 31, 1166-72.	3.3	27
22	Helical-scan computed tomography using cone-beam projections. , 0, , .		26
23	Millisecond-order X-ray phase tomography with compressed sensing. Japanese Journal of Applied Physics, 2017, 56, 112503.	0.8	26
24	Multibeam x-ray optical system for high-speed tomography. Optica, 2020, 7, 514.	4.8	26
25	General Reconstruction Theory for Multislice X-ray Computed Tomography With a Gantry Tilt. IEEE Transactions on Medical Imaging, 2004, 23, 1109-1116.	5.4	25
26	Improved iterative algorithm for sparse object reconstruction and its performance evaluation with micro-CT data. IEEE Transactions on Nuclear Science, 2004, 51, 659-666.	1.2	23
27	Implications of Web of Science journal impact factor for scientific output evaluation in 16 institutions and investigators' opinion. Quantitative Imaging in Medicine and Surgery, 2014, 4, 453-61.	1.1	23
28	High Levels of IgAâ€Containing Circulating Immune Complex and Secretory IgA in Kawasaki Disease. Microbiology and Immunology, 1987, 31, 891-898.	0.7	22
29	Motion Compensated Fan-Beam Reconstruction for Nonrigid Transformation. IEEE Transactions on Medical Imaging, 2008, 27, 907-917.	5.4	21
30	Rebinning-based algorithms for helical cone-beam CT. Physics in Medicine and Biology, 2001, 46, 2911-2937.	1.6	20
31	Fast and stable cone-beam filtered backprojection method for non-planar orbits. Physics in Medicine and Biology, 1998, 43, 747-760.	1.6	18
32	Improved two-dimensional rebinning of helical cone-beam computerized tomography data using JohnÂs equation. Inverse Problems, 2003, 19, S41-S54.	1.0	17
33	New anatomical-prior-based image reconstruction method for PET/SPECT. , 2007, , .		17
34	A fast regularized iterative algorithm for fan-beam CT reconstruction. Physics in Medicine and Biology, 2019, 64, 145006.	1.6	17
35	Performance of quasi-exact cone-beam filtered backprojection algorithm for axially truncated helical data. IEEE Transactions on Nuclear Science, 1999, 46, 608-617.	1.2	16
36	Derivation and Implementation of Ordered-Subsets Algorithms for List-Mode PET Data. , 0, , .		14

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37	View-independent reconstruction algorithms for cone beam CT with general saddle trajectory. Physics in Medicine and Biology, 2006, 51, 3865-3884.	1.6	14
38	GPU-Based PET Image Reconstruction Using an Accurate Geometrical System Model. IEEE Transactions on Nuclear Science, 2012, 59, 1977-1983.	1.2	12
39	Three-dimensional helical-scan computed tomography using cone-beam projections. Systems and Computers in Japan, 1992, 23, 75-82.	0.2	11
40	A very fast iterative algorithm for TV-regularized image reconstruction with applications to low-dose and few-view CT. Proceedings of SPIE, 2016, , .	0.8	11
41	In-situtraining and time-resolved electron tomography data acquisition in a transmission electron microscope. Microscopy (Oxford, England), 2016, 66, 143-153.	0.7	11
42	Nonlocal Total Variation Using the First and Second Order Derivatives and Its Application to CT image Reconstruction. Sensors, 2020, 20, 3494.	2.1	11
43	Exploring Frontiers of 4D X-ray Tomography. Applied Sciences (Switzerland), 2021, 11, 8868.	1.3	11
44	Millimeter-wave scanning near-field anisotropy microscopy. Review of Scientific Instruments, 2005, 76, 033702.	0.6	10
45	Probabilistic atlas prior for CT image reconstruction. Computer Methods and Programs in Biomedicine, 2016, 128, 119-136.	2.6	10
46	Effects of sera from patients with obstructive jaundice on the generation of oxygen intermediates by normal polymorphonuclear leukocytes. Liver, 1988, 8, 366-371.	0.1	9
47	Sparsity-constrained three-dimensional image reconstruction for C-arm angiography. Computers in Biology and Medicine, 2015, 62, 141-153.	3.9	9
48	Toward Time Resolved Cardiac CT Images with Patient Dose Reduction: Image-based Motion Estimation. , 2006, , .		8
49	2D Non-Separable Block-Lifting Structure and Its Application to <inline-formula> <tex-math notation="LaTeX">M </tex-math></inline-formula>-Channel Perfect Reconstruction Filter Banks for Lossy-to-Lossless Image Coding. IEEE Transactions on Image Processing, 2015, 24, 4943-4951.	6.0	8
50	Three-dimensional monochromatic x-ray computed tomography using synchrotron radiation. Optical Engineering, 1998, 37, 2258.	0.5	7
51	Application of Pack and Noo's Cone-Beam Inversion Formula to a Wide Class of Trajectories. , 2006, , .		7
52	Note: Near-field imaging of thermal radiation at low temperatures by passive millimeter-wave microscopy. Review of Scientific Instruments, 2013, 84, 036103.	0.6	7
53	Damage and Fracture Mechanics Analysis of G-11 Woven Glass-Epoxy Laminates at Cryogenic Temperatures. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1999, 63, 221-229.	0.2	6
54	Tiny a priori knowledge solves the interior problem. , 2007, , .		6

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55	Towards high-resolution synchrotron radiation imaging with statistical iterative reconstruction. Journal of Synchrotron Radiation, 2013, 20, 116-124.	1.0	6
56	Accelerated algorithm for the classical SIRT method in CT image reconstruction. , 2020, , .		6
57	GPU implementation of list-mode DRAMA for real-time OpenPET image reconstruction. , 2010, , .		5
58	Image Boundary Extension With Mean Value for Cosineâ€"Sine Modulated Lapped/Block Transforms. IEEE Transactions on Circuits and Systems for Video Technology, 2019, 29, 1-11.	5.6	5
59	A Tomographic Image Reconstruction from Limited View Angle Projection Data. Systems and Computers in Japan, 1988, 19, 56-64.	0.2	4
60	Closed Sinusoid Trajectory for C-Arm CT Imaging. , 2006, , .		4
61	Conceptual design of high resolution and quantitative SPECT system for imaging a selected small ROI of human brain. , 2009, , .		4
62	Row-action image reconstruction algorithm using &#x2113;<inf>p</inf>-norm distance to a reference image. , 2011, , .		4
63	Applications of compressed sensing image reconstruction to sparse view phase tomography. , 2017, , .		4
64	Image reconstruction in sparse-view CT using improved nonlocal total variation regularization. , 2019, , .		4
65	Advanced compressed sensing image reconstruction for interior tomography. , 2019, , .		4
66	New approximate filtered backprojection algorithm for helical cone-beam CT with redundant data. , 0, , .		3
67	Tomographic image reconstruction from incomplete cone beam projections by the method of convex projections. Electronics and Communications in Japan, Part III: Fundamental Electronic Science (English Translation of Denshi Tsushin Gakkai Ronbunshi), 1991, 74, 54-63.	0.1	3
68	<title>Three-dimensional monochromatic x-ray CT</title>. , 1995, 2564, 548.		3
69	3D-OSEM Reconstruction from truncated data in pinhole SPECT. , 2007, , .		3
70	Interactive Segmentation of Pancreases in Abdominal Computed Tomography Images and Its Evaluation Based on Segmentation Accuracy and Interaction Costs. BioMed Research International, 2017, 2017, 1-8.	0.9	3
71	Redefined Block-Lifting-Based Filter Banks With Efficient Reversible Nonexpansive Convolution. IEEE Transactions on Circuits and Systems for Video Technology, 2019, 29, 1438-1447.	5.6	3
72	Metal artifact reduction in CT using fault-tolerant image reconstruction. , 2019, , .		3

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73	Edge detection using markov random field models—optimization and parameter estimation by mean field annealing. Electronics and Communications in Japan, Part III: Fundamental Electronic Science (English Translation of Denshi Tsushin Gakkai Ronbunshi), 1995, 78, 21-33.	0.1	2
74	Cryogenic Mode II Interlaminar Fracture Toughness of Glass-cloth/Epoxy Laminates by End Notched Flexure Testing and Finite Element Method. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2000, 64, 423-428.	0.2	2
75	Improvement in Image Reconstruction of Scanning Near-Field Millimeter-Wave Microscopy Using a Metal Slit-Type Probe. Japanese Journal of Applied Physics, 2001, 40, 4252-4253.	0.8	2
76	Effect of Truncation in Quantitative Cardiac Imaging with Small Field-of-View Pinhole SPECT. , 2006, , .		2
77	Practical statistical models for region-of-interest tomographic reconstruction and long object problem. , 2007, , .		2
78	MAP-EM reconstruction using uniform background template for limited-angle PEM. , 2008, , .		2
79	Region-of-Interest reconstruction from truncated projection data under blind Object Support. , 2008, , .		2
80	Integer fast lapped biorthogonal transform via applications of DCT matrices and dyadic-valued factors for lifting coefficient blocks. , 2013, , .		2
81	Restoration of lost frequency in OpenPET imaging: comparison between the method of convex projections and the maximum likelihood expectation maximization method. Radiological Physics and Technology, 2014, 7, 329-339.	1.0	2
82	B11-P-14ISER, a new, compressed sensing based reconstruction algorithm for reducing image acquisition time. Microscopy (Oxford, England), 2015, 64, i84.2-i84.	0.7	2
83	Extended Block-Lifting-Based Lapped Transforms. IEEE Signal Processing Letters, 2015, 22, 1657-1660.	2.1	2
84	Adaptive image denoising approach for low-dose computed tomography. , 2017, , .		2
85	Image Reconstruction using Self-Prior Information for Sparse-View Computed Tomography. , 2018, , .		2
86	Observation of Protein Thermodynamics in Ice by Passive Millimeter-Wave Microscopy. Journal of Infrared, Millimeter, and Terahertz Waves, 2019, 40, 585-594.	1.2	2
87	Proposal of fault-tolerant tomographic image reconstruction. , 2016, , .		2
88	<title>New stochastic sampling method for region extraction: theory and experiments</title>. , 1996, , .		2
89	Template-Matching-Based Tracking of Cervical Spines in Videofluorography During Swallowing. Smart Innovation, Systems and Technologies, 2018, , 185-191.	0.5	2
90	A Reversible Data Compression Scheme For CT Image Archiving. Proceedings of SPIE, 1989, , .	0.8	1

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91	Three‐dimensional tomographic image reconstruction from cone beam projections by single scanning method. Systems and Computers in Japan, 1990, 21, 86-95.	0.2	1
92	Reconstruction of emission tomographic images using the compound gauss‐markov random field. Systems and Computers in Japan, 1993, 24, 78-87.	0.2	1
93	Signal source localization from spatio‐temporal biomagnetic data by signal subspace method. Systems and Computers in Japan, 1996, 27, 12-25.	0.2	1
94	A New Class of Super-Short-Scan Algorithms for Fan-Beam Reconstruction. , 0, , .		1
95	Image processing method for analyzing cerebral blood-flow using SPECT and MRI. , 2007, , .		1
96	Clinical usability of a compact high resolution detector for high resolution and quantitative SPECT imaging in a selected small ROI. , 2008, , .		1
97	Combination of a high resolution detector with small FOV and a low resolution detector with large FOV for high resolution and quantitative SPECT. , 2008, , .		1
98	High resolution brain imaging with combined parallel-hole and pinhole collimation. , 2010, , .		1
99	Introduction to advanced image reconstruction methods and compressed sensing in medical computed tomography. Microscopy (Oxford, England), 2014, 63, i15-i15.	0.7	1
100	Image boundary extension with mean values for cosine-sine modulated filter banks. , 2015, , .		1
101	An improved phase shift reconstruction algorithm of fringe scanning technique for X-ray microscopy. Review of Scientific Instruments, 2015, 86, 023707.	0.6	1
102	Needle detection in interventional pain management with 3D image reconstruction. , 2016, , .		1
103	FBP embedded iterative method to efficiently solve the low-dose CT. , 2017, , .		1
104	Phase unwrapping with differential phase image. , 2017, , .		1
105	Pseudo reversible symmetric extension for lifting-based nonlinear-phase paraunitary filter banks. , 2017, , .		1
106	All-in-Focus Image Generation Using Improved Blind Image Deconvolution Technique. , 2018, , .		1
107	Phase shifting method for non-sinusoidal interference fringes with phase shift error. Japanese Journal of Applied Physics, 2019, 58, 112005.	0.8	1
108	Segmentation of cervical intervertebral disks in videofluorography by CNN, multi-channelization and feature selection. International Journal of Computer Assisted Radiology and Surgery, 2020, 15, 901-908.	1.7	1

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109	Segmentation of intervertebral disks from videofluorographic images using convolutional neural network. , 2019, , .		1
110	Cryogenic Mode I Interlaminar Fracture Toughness of Glass-cloth/Epoxy Laminates by DCB Testing and the Finite Element Method.. TEION KOGAKU (Journal of Cryogenics and Superconductivity Society of) Tj ETQq0 0 0 rgBT /Overlock 10 Tf		
111	Structure-by-structure Recognition of Spinal Columns, Ribs, Intervertebral Disks and Vertebrae from Abdominal X-ray CT Images. Journal of Japan Society of Computer Aided Surgery, 2017, 19, 131-138.	0.1	1
112	Low-dose multiphase abdominal CT reconstruction with phase-induced swap prior. Proceedings of SPIE, 2016, , .	0.8	1
113	New Level-Set-Based Shape Recovery Method and its application to sparse-view shape tomography. , 2021, , .		1
114	Sparsity-based method for ring artifact elimination in computed tomography. PLoS ONE, 2022, 17, e0268410.	1.1	1
115	Tomographic image reconstruction from incomplete projection data by the method of convex projections. Systems and Computers in Japan, 1991, 22, 66-75.	0.2	0
116	Estimation of static field inhomogeneity and patient motion in magnetic resonance imaging. Systems and Computers in Japan, 1992, 23, 38-48.	0.2	0
117	Reconstruction of magnetic resonance images by iterative methods. Systems and Computers in Japan, 1992, 23, 62-74.	0.2	0
118	<title>Stereo-matching algorithm based on energy minimization principle in Markov random field model</title>. , 1996, , .		0
119	<title>Wavelet packet image coding with optimized zerotree quantization</title>. , 1998, , .		0
120	Shape representation using extended hyperquadrics. Electronics and Communications in Japan, 2003, 86, 42-51.	0.2	0
121	Attenuation map reconstruction using topology constrained labeling. Electronics and Communications in Japan, 2003, 86, 31-41.	0.2	0
122	Newton-SOR method for fast statistical tomographic image reconstruction. Systems and Computers in Japan, 2003, 34, 1-11.	0.2	0
123	Image improvement in pinhole SPECT using complete data acquisition combined with statistical image reconstruction. International Congress Series, 2004, 1265, 101-105.	0.2	0
124	Noise Reduction Using a Theoretically-Exact Algorithm for Helical Cone-Beam Tomography. , 2006, , .		0
125	Statistical PET image reconstruction using duality of nonlinear programming. Electronics and Communications in Japan, 2007, 90, 122-131.	0.2	0
126	A simple motion tracking backprojection for a class of affine transformation. , 2008, , .		0

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127	Fusion of image reconstruction and lesion detection using a bayesian framework for PET/SPECT. , 2008, , .		0
128	Adaptive thresholding for robust iterative image reconstruction from limited views projection data. , 2011, , .		0
129	Iterative thresholding framework for row-action reconstruction from sparse projection data. , 2011, , .		0
130	Towards a high-resolution local tomography using statistical iterative reconstruction. , 2011, , .		0
131	Metal artifact reduction in x-ray computed tomography by using analytical DBP-type algorithm. Proceedings of SPIE, 2012, , .	0.8	0
132	General analytical reconstruction formula for fan-beam computed tomography. Proceedings of SPIE, 2012, , .	0.8	0
133	Analytical fan-beam reconstruction algorithm for free-form trajectory with plus-minus weighting scheme. , 2012, , .		0
134	Development of interactive 3D imaging system for hepatic angiography. , 2013, , .		0
135	Compressed-sensing-based three-dimensional image reconstruction algorithm for C-arm vascular imaging. , 2014, , .		0
136	Integer time-domain pre- and post-filters for low-complexity extension of JPEG standard. , 2014, , .		0
137	Low-dose CT image reconstruction method with probabilistic atlas prior. , 2015, , .		0
138	Three-Dimensional Observation of Lattice Defects Using Electron Tomography. Nihon Kessho Gakkaishi, 2015, 57, 276-284.	0.0	0
139	Atlas-Based interior tomography. , 2016, , .		0
140	Atlas-based image reconstruction for breast CT imaging using non-isocentric C-Arm scanner. , 2016, , .		0
141	Practical interior tomography with small region piecewise model prior. Proceedings of SPIE, 2017, , .	0.8	0
142	Investigation into image quality difference between total variation and nonlinear sparsifying transform based compressed sensing. Proceedings of SPIE, 2017, , .	0.8	0
143	Compressed sensing of sparsity-constrained total variation minimization for CT image reconstruction. Proceedings of SPIE, 2017, , .	0.8	0
144	An MRF-based image segmentation with unsupervised model parameter estimation. , 2017, , .		0

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145	Two-Dimensional Phase Unwrapping with Continuous Submodular Minimization. , 2018, , .		0
146	Image Reconstruction with Variational Networks: Application to Synchrotron Radiation Imaging. , 2018, , .		0
147	Image Correction in Emission Tomography Using Deep Convolution Neural Network. , 2019, , .		0
148	Compressed Sensing Image Reconstruction For Millimeter-Wave Near-Field Scanning Microscopy Using a Metal Slit Probe. , 2019, , .		0
149	Single-shot fringe-pattern analysis algorithm robust against abrupt phase jumps. Optics and Lasers in Engineering, 2021, 139, 106462.	2.0	0
150	Effects of Oral Administration of Vitamin D3 Metabolites on Histological Changes of Intestinal Mucosa. Journal of Clinical Biochemistry and Nutrition, 1987, 3, 201-207.	0.6	0
151	Immunohistochemical Localization of Vitamin B12 R-Binder in Human Skin Tissues. Journal of Clinical Biochemistry and Nutrition, 1988, 4, 249-254.	0.6	0
152	A Unified Approach to Tomographic Image Reconstruction from Incomplete Projections. , 1992, , 1421-1424.		0
153	Cryogenic Compressive Properties of Woven Glass-epoxy Laminates.. TEION KOGAKU (Journal of) Tj ETQq1 1 0.784314 rgBT /Overloc	0.1	0
154	Placticals and Trends of Electron Tomography for Materials Research. Materia Japan, 2018, 57, 589-594.	0.1	0
155	Discrimination of Cervical Spine Disorders Based on Cervical Lordosises in Videofluorography During Swallowing. Journal of Japan Society of Computer Aided Surgery, 2019, 21, 12-17.	0.1	0
156	Motion-less super-resolution under blind condition using sparse optimization. , 2020, , .		0
157	<i>Retracted August 7, 2023</i> : Uniqueness Results of Mixed Interior and Exterior Problems for CT Image Reconstruction. , 2021, , .		0
158	Unified Framework to Construct Fast Row-Action-Type Iterative CT Reconstruction Methods with Total Variation Using Multi Proximal Splitting. , 2021, , .		0
159	Preliminary study on construction of polar coordinate systems to define the positions of cervical structures in videofluorography during swallowing. , 2020, , .		0
160	Fundamental and Trend of Tomographic Image Reconstruction: from Analytical Reconstruction Method, through Compressed Sensing, to Deep Learning. Materia Japan, 2022, 61, 7-14.	0.1	0
161	Estimation of patientâ€™s angle from skull radiographs using deep learning. Journal of X-Ray Science and Technology, 2022, , 1-13.	0.7	0