Hiroyuki Kudo

List of Publications by Citations

115 papers	**1,741** citations	**20** h-index	**40** g-index
163 ext. papers	**2,119** ext. citations	**3.2** avg, IF	**4.61** L-index

#	Paper	IF	Citations
115	Tiny a priori knowledge solves the interior problem in computed tomography. *Physics in Medicine and Biology*, **2008**, 53, 2207-31	3.8	156
114	Image reconstruction from fan-beam projections on less than a short scan. *Physics in Medicine and Biology*, **2002**, 47, 2525-46	3.8	147
113	Truncated Hilbert transform and image reconstruction from limited tomographic data. *Inverse Problems*, **2006**, 22, 1037-1053	2.3	140
112	A solution to the long-object problem in helical cone-beam tomography. *Physics in Medicine and Biology*, **2000**, 45, 623-43	3.8	107
111	Cone-beam filtered-backprojection algorithm for truncated helical data. *Physics in Medicine and Biology*, **1998**, 43, 2885-909	3.8	102
110	Derivation and implementation of a cone-beam reconstruction algorithm for nonplanar orbits. *IEEE Transactions on Medical Imaging*, **1994**, 13, 196-211	11.7	84
109	SOLVING THE INTERIOR PROBLEM OF COMPUTED TOMOGRAPHY USING A PRIORI KNOWLEDGE. *Inverse Problems*, **2008**, 24, 65001	2.3	83
108	Subset-dependent relaxation in block-iterative algorithms for image reconstruction in emission tomography. *Physics in Medicine and Biology*, **2003**, 48, 1405-22	3.8	79
107	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, 2599-609	3.8	78
106	Investigation of saddle trajectories for cardiac CT imaging in cone-beam geometry. *Physics in Medicine and Biology*, **2004**, 49, 2317-36	3.8	57
105	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	1.8	42
104	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, 2169-83	1.8	40
103	Quasi-exact filtered backprojection algorithm for long-object problem in helical cone-beam tomography. *IEEE Transactions on Medical Imaging*, **2000**, 19, 902-21	11.7	37
102	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	3.6	35
101	Exact and approximate algorithms for helical cone-beam CT. *Physics in Medicine and Biology*, **2004**, 49, 2913-31	3.8	31
100	Optimal relaxation parameters of DRAMA (dynamic RAMLA) aiming at one-pass image reconstruction for 3D-PET. *Physics in Medicine and Biology*, **2010**, 55, 2917-39	3.8	29
99	Statistical image reconstruction from limited projection data with intensity priors. *Physics in Medicine and Biology*, **2012**, 57, 2039-61	3.8	22

98	General reconstruction theory for multislice X-ray computed tomography with a gantry tilt. *IEEE Transactions on Medical Imaging*, **2004**, 23, 1109-16	11.7	22
97	Enabling photon counting clinical X-ray CT **2009**,		21
96	Exact cone beam reconstruction for a saddle trajectory. *Physics in Medicine and Biology*, **2006**, 51, 1157-72	3.8	21
95	Computerized breast cancer analysis system using three stage semi-supervised learning method. *Computer Methods and Programs in Biomedicine*, **2016**, 135, 77-88	6.9	20
94	A new reconstruction strategy for image improvement in pinhole SPECT. *European Journal of Nuclear Medicine and Molecular Imaging*, **2004**, 31, 1166-72	8.8	20
93	Improved iterative algorithm for sparse object reconstruction and its performance evaluation with micro-CT data. *IEEE Transactions on Nuclear Science*, **2004**, 51, 659-666	1.7	18
92	Millisecond-order X-ray phase tomography with compressed sensing. *Japanese Journal of Applied Physics*, **2017**, 56, 112503	1.4	17
91	Motion compensated fan-beam reconstruction for nonrigid transformation. *IEEE Transactions on Medical Imaging*, **2008**, 27, 907-17	11.7	17
90	High levels of IgA-containing circulating immune complex and secretory IgA in Kawasaki disease. *Microbiology and Immunology*, **1987**, 31, 891-8	2.7	17
89	Improved two-dimensional rebinning of helical cone-beam computerized tomography data using John's equation. *Inverse Problems*, **2003**, 19, S41-S54	2.3	15
88	Rebinning-based algorithms for helical cone-beam CT. *Physics in Medicine and Biology*, **2001**, 46, 2911-37	3.8	15
87	Fast and stable cone-beam filtered backprojection method for non-planar orbits. *Physics in Medicine and Biology*, **1998**, 43, 747-60	3.8	15
86	Implications of Web of Science journal impact factor for scientific output evaluation in 16 institutions and investigatorsTopinion. *Quantitative Imaging in Medicine and Surgery*, **2014**, 4, 453-61	3.6	14
85	A fast regularized iterative algorithm for fan-beam CT reconstruction. *Physics in Medicine and Biology*, **2019**, 64, 145006	3.8	13
84	Performance of quasi-exact cone-beam filtered backprojection algorithm for axially truncated helical data. *IEEE Transactions on Nuclear Science*, **1999**, 46, 608-617	1.7	12
83			12
82	Multibeam x-ray optical system for high-speed tomography. *Optica*, **2020**, 7, 514	8.6	11
81	View-independent reconstruction algorithms for cone beam CT with general saddle trajectory. *Physics in Medicine and Biology*, **2006**, 51, 3865-84	3.8	10

80	In-situ straining and time-resolved electron tomography data acquisition in a transmission electron microscope. *Microscopy (Oxford, England)*, **2017**, 66, 143-153	1.3	9
79	New anatomical-prior-based image reconstruction method for PET/SPECT **2007**,		9
78	Three-dimensional helical-scan computed tomography using cone-beam projections. *Systems and Computers in Japan*, **1992**, 23, 75-82		9
77	2D Non-Separable Block-Lifting Structure and Its Application to M-Channel Perfect Reconstruction Filter Banks for Lossy-to-Lossless Image Coding. *IEEE Transactions on Image Processing*, **2015**, 24, 4943-51	8.7	8
76	Effects of sera from patients with obstructive jaundice on the generation of oxygen intermediates by normal polymorphonuclear leukocytes. *Liver*, **1988**, 8, 366-71		8
75	Derivation and implementation of ordered-subsets algorithms for list-mode PET data		8
74	GPU-Based PET Image Reconstruction Using an Accurate Geometrical System Model. *IEEE Transactions on Nuclear Science*, **2012**, 59, 1977-1983	1.7	7
73	Millimeter-wave scanning near-field anisotropy microscopy. *Review of Scientific Instruments*, **2005**, 76, 033702	1.7	6
72	Three-dimensional monochromatic x-ray computed tomography using synchrotron radiation. *Optical Engineering*, **1998**, 37, 2258	1.1	6
71	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	0.4	6
70	A very fast iterative algorithm for TV-regularized image reconstruction with applications to low-dose and few-view CT **2016**,		6
69	Sparsity-constrained three-dimensional image reconstruction for C-arm angiography. *Computers in Biology and Medicine*, **2015**, 62, 141-53	7	5
68	Nonlocal Total Variation Using the First and Second Order Derivatives and Its Application to CT Image Reconstruction. *Sensors*, **2020**, 20,	3.8	5
67	**2010**,		5
66	Toward Time Resolved Cardiac CT Images with Patient Dose Reduction: Image-based Motion Estimation **2006**,		5
65	. *IEEE Transactions on Circuits and Systems for Video Technology*, **2019**, 29, 1-11	6.4	4
64	Towards high-resolution synchrotron radiation imaging with statistical iterative reconstruction. *Journal of Synchrotron Radiation*, **2013**, 20, 116-24	2.4	4
63	Interactive Segmentation of Pancreases in Abdominal Computed Tomography Images and Its Evaluation Based on Segmentation Accuracy and Interaction Costs. *BioMed Research International*, **2017**, 2017, 5094592	3	3

62	Probabilistic atlas prior for CT image reconstruction. *Computer Methods and Programs in Biomedicine*, **2016**, 128, 119-36	6.9	3
61	Redefined Block-Lifting-Based Filter Banks With Efficient Reversible Nonexpansive Convolution. *IEEE Transactions on Circuits and Systems for Video Technology*, **2019**, 29, 1438-1447	6.4	3
60	Note: Near-field imaging of thermal radiation at low temperatures by passive millimeter-wave microscopy. *Review of Scientific Instruments*, **2013**, 84, 036103	1.7	3
59	Applications of compressed sensing image reconstruction to sparse view phase tomography **2017**,		3
58	Extended Block-Lifting-Based Lapped Transforms. *IEEE Signal Processing Letters*, **2015**, 22, 1657-1660	3.2	2
57	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, 329-39	1.7	2
56	Integer fast lapped biorthogonal transform via applications of DCT matrices and dyadic-valued factors for lifting coefficient blocks **2013**,		2
55	Row-action image reconstruction algorithm using β-norm distance to a reference image **2011**,		2
54	MAP-EM reconstruction using uniform background template for limited-angle PEM **2008**,		2
53	Tiny a priori knowledge solves the interior problem **2007**,		2
52	Practical statistical models for region-of-interest tomographic reconstruction and long object problem **2007**,		2
51	Closed Sinusoid Trajectory for C-Arm CT Imaging **2006**,		2
50	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	1.4	2
49	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	0.4	2
48	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		2
47	Metal artifact reduction in CT using fault-tolerant image reconstruction **2019**,		2
46	Interactive Segmentation of Pancreases from Abdominal CT Images by Use of the Graph Cut Technique with Probabilistic Atlases. *Smart Innovation, Systems and Technologies*, **2016**, 575-584	0.5	2
45	New approximate filtered backprojection algorithm for helical cone-beam CT with redundant data		2

44	Exploring Frontiers of 4D X-ray Tomography. *Applied Sciences (Switzerland)*, **2021**, 11, 8868	2.6	2
43	FBP embedded iterative method to efficiently solve the low-dose CT **2017**,		1
42	Phase unwrapping with differential phase image **2017**,		1
41	Observation of Protein Thermodynamics in Ice by Passive Millimeter-Wave Microscopy. *Journal of Infrared, Millimeter, and Terahertz Waves*, **2019**, 40, 585-594	2.2	1
40	An improved phase shift reconstruction algorithm of fringe scanning technique for X-ray microscopy. *Review of Scientific Instruments*, **2015**, 86, 023707	1.7	1
39	Introduction to advanced image reconstruction methods and compressed sensing in medical computed tomography. *Microscopy (Oxford, England)*, **2014**, 63 Suppl 1, i15	1.3	1
38	High resolution brain imaging with combined parallel-hole and pinhole collimation **2010**,		1
37	Conceptual design of high resolution and quantitative SPECT system for imaging a selected small ROI of human brain **2009**,		1
36	Clinical usability of a compact high resolution detector for high resolution and quantitative SPECT imaging in a selected small ROI **2008**,		1
35	Region-of-Interest reconstruction from truncated projection data under blind Object Support **2008**,		1
34	Effect of Truncation in Quantitative Cardiac Imaging with Small Field-of-View Pinhole SPECT **2006**,		1
33	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		1
32	Three-dimensional tomographic image reconstruction from cone beam projections by single scanning method. *Systems and Computers in Japan*, **1990**, 21, 86-95		1
31	A Tomographic Image Reconstruction from Limited View Angle Projection Data. *Systems and Computers in Japan*, **1988**, 19, 56-64		1
30	Proposal of fault-tolerant tomographic image reconstruction **2016**,		1
29	Segmentation of intervertebral disks from videofluorographic images using convolutional neural network **2019**,		1
28	Image reconstruction in sparse-view CT using improved nonlocal total variation regularization **2019**,		1
27	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 Japan)*, **2000**, 35, 72-78	0.1	1

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26	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
25	Template-Matching-Based Tracking of Cervical Spines in Videofluorography During Swallowing. *Smart Innovation, Systems and Technologies*, **2018**, 185-191	0.5	1
24	Phase shifting method for non-sinusoidal interference fringes with phase shift error. *Japanese Journal of Applied Physics*, **2019**, 58, 112005	1.4	0
23	Three-dimensional monochromatic x-ray CT **1995**, 2564, 548		0
22	Reconstruction of emission tomographic images using the compound gauss-markov random field. *Systems and Computers in Japan*, **1993**, 24, 78-87		0
21	Low-dose multiphase abdominal CT reconstruction with phase-induced swap prior **2016**,		0
20	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	3.9	0
19	B11-P-14 ISER, a new, compressed sensing based reconstruction algorithm for reducing image acquisition time. *Microscopy (Oxford, England)*, **2015**, 64, i84.2-i84	1.3	
18	Three-Dimensional Observation of Lattice Defects Using Electron Tomography. *Nihon Kessho Gakkaishi*, **2015**, 57, 276-284		0
17	Statistical PET image reconstruction using duality of nonlinear programming. *Electronics and Communications in Japan*, **2007**, 90, 122-131		
16	Shape representation using extended hyperquadrics. *Electronics and Communications in Japan*, **2003**, 86, 42-51		
15	Attenuation map reconstruction using topology constrained labeling. *Electronics and Communications in Japan*, **2003**, 86, 31-41		
14	Newton-SOR method for fast statistical tomographic image reconstruction. *Systems and Computers in Japan*, **2003**, 34, 1-11		
13	Image improvement in pinhole SPECT using complete data acquisition combined with statistical image reconstruction. *International Congress Series*, **2004**, 1265, 101-105		
12	Signal source localization from spatio-temporal biomagnetic data by signal subspace method. *Systems and Computers in Japan*, **1996**, 27, 12-25		
11	Tomographic image reconstruction from incomplete projection data by the method of convex projections. *Systems and Computers in Japan*, **1991**, 22, 66-75		
10	Estimation of static field inhomogeneity and patient motion in magnetic resonance imaging. *Systems and Computers in Japan*, **1992**, 23, 38-48		
9	Reconstruction of magnetic resonance images by iterative methods. *Systems and Computers in Japan*, **1992**, 23, 62-74		

8   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

7   Placticals and Trends of Electron Tomography for Materials Research. *Materia Japan*, **2018**, 57, 589-594   0.1

6   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

5   Immunohistochemical Localization of Vitamin B12 R-Binder in Human Skin Tissues. *Journal of Clinical Biochemistry and Nutrition*, **1988**, 4, 249-254   3.1

4   A Unified Approach to Tomographic Image Reconstruction from Incomplete Projections **1992**, 1421-1424

3   Cryogenic Compressive Properties of Woven Glass-epoxy Laminates.. *TEION KOGAKU (Journal of Cryogenics and Superconductivity Society of Japan)*, **1999**, 34, 15-22   0.1

2   Effects of Oral Administration of Vitamin D3 Metabolites on Histological Changes of Intestinal Mucosa. *Journal of Clinical Biochemistry and Nutrition*, **1987**, 3, 201-207   3.1

1   Single-shot fringe-pattern analysis algorithm robust against abrupt phase jumps. *Optics and Lasers in Engineering*, **2021**, 139, 106462   4.6