Paul Babyn

List of Publications by Year
in descending order

129 papers	6,203 citations	136885 32 h-index	71651 76 g-index
130 all docs	130 docs citations	130 times ranked	7398 citing authors

#	Article	IF	Citations
1	Telerobotic ultrasound to provide obstetrical ultrasound services remotely during the COVID-19 pandemic. Journal of Telemedicine and Telecare, 2022, 28, 568-576.	1.4	25
2	Program Report: NÃ®sohkamÃ¢towakâ€"Helping Patients and Families Living With Kidney Disease in Northern Saskatchewan. Canadian Journal of Kidney Health and Disease, 2022, 9, 205435812110670.	0.6	1
3	A Telerobotic Ultrasound Clinic Model of Ultrasound Service Delivery to Improve Access to Imaging in Rural and Remote Communities. Journal of the American College of Radiology, 2022, 19, 162-171.	0.9	7
4	Pediatric chest radiograph interpretation: how far has artificial intelligence come? A systematic literature review. Pediatric Radiology, 2022, 52, 1568-1580.	1.1	16
5	Telerobotic Sonography for Remote Diagnostic Imaging. Journal of Ultrasound in Medicine, 2021, 40, 1287-1306.	0.8	24
6	Artificial Intelligence Solutions for Analysis of X-ray Images. Canadian Association of Radiologists Journal, 2021, 72, 60-72.	1.1	30
7	Artificial intelligence-based imaging analytics and lung cancer diagnostics: Considerations for health system leaders. Healthcare Management Forum, 2021, 34, 169-174.	0.6	6
8	Access to ultrasound imaging: A qualitative study in two northern, remote, Indigenous communities in Canada. International Journal of Circumpolar Health, 2021, 80, 1961392.	0.5	11
9	Development and Cost Analysis of a Lung Nodule Management Strategy Combining Artificial Intelligence and Lung-RADS for Baseline Lung Cancer Screening. Journal of the American College of Radiology, 2021, 18, 741-751.	0.9	17
10	Access to Mammography Among Indigenous Peoples in North America. Academic Radiology, 2021, 28, 950-952.	1.3	3
11	Automatic Detection and Classification of Multiple Catheters in Neonatal Radiographs with Deep Learning. Journal of Digital Imaging, 2021, 34, 888-897.	1.6	11
12	Musculoskeletal ultrasound in hemophilia: Results and recommendations from a global survey and consensus meeting. Research and Practice in Thrombosis and Haemostasis, 2021, 5, e12531.	1.0	18
13	Sociodemographic and Geographic Disparities in Obstetrical Ultrasound Imaging Utilization: A Population-based Study. Academic Radiology, 2021, , .	1.3	5
14	Sociodemographic and Geographic Factors Associated With Non-Obstetrical Ultrasound Imaging Utilization: A Population-Based Study. Canadian Association of Radiologists Journal, 2021, , 084653712110411.	1.1	1
15	Magnetic resonance imaging in boys with severe hemophilia A: Serial and endâ€ofâ€study findings from the Canadian Hemophilia Primary Prophylaxis Study. Research and Practice in Thrombosis and Haemostasis, 2021, 5, e12565.	1.0	4
16	Automatic Catheter and Tube Detection in Pediatric X-ray Images Using a Scale-Recurrent Network and Synthetic Data. Journal of Digital Imaging, 2020, 33, 181-190.	1.6	30
17	Deep Learning for Low-Dose CT Denoising Using Perceptual Loss and Edge Detection Layer. Journal of Digital Imaging, 2020, 33, 504-515.	1.6	74
18	COVID-SAFE: An IoT-Based System for Automated Health Monitoring and Surveillance in Post-Pandemic Life. IEEE Access, 2020, 8, 188538-188551.	2.6	146

#	ARTICLE	IF	CITATIONS
19	Patient Perspectives and Priorities Regarding Artificial Intelligence in Radiology: Opportunities for Patient-Centered Radiology. Journal of the American College of Radiology, 2020, 17, 1034-1036.	0.9	21
20	Computer-aided Assessment of Catheters and Tubes on Radiographs: How Good Is Artificial Intelligence for Assessment?. Radiology: Artificial Intelligence, 2020, 2, e190082.	3.0	19
21	An Introduction to High Intensity Focused Ultrasound: Systematic Review on Principles, Devices, and Clinical Applications. Journal of Clinical Medicine, 2020, 9, 460.	1.0	209
22	Use of ultrasound for assessment of musculoskeletal disease in persons with haemophilia: Results of an International Prophylaxis Study Group global survey. Haemophilia, 2020, 26, 685-693.	1.0	16
23	Monogenic autoinflammatory diseases in children: single center experience with clinical, genetic, and imaging review. Insights Into Imaging, 2020, 11, 87.	1.6	3
24	Reconstruction of Cardiac Perfusion MRI with Motion Compensated Compressed Sensing. , 2020, , .		0
25	Health Care–Associated Infections and the Radiology Department. Journal of Medical Imaging and Radiation Sciences, 2019, 50, 596-606.e1.	0.2	27
26	Generative adversarial network in medical imaging: A review. Medical Image Analysis, 2019, 58, 101552.	7.0	958
27	Computer-Aided Diagnosis (CAD) of Pulmonary Nodule of Thoracic CT Image Using Transfer Learning. Journal of Digital Imaging, 2019, 32, 995-1007.	1.6	43
28	Ultrasound Cavitation/Microbubble Detection and Medical Applications. Journal of Medical and Biological Engineering, 2019, 39, 259-276.	1.0	70
29	Randomized Clinical Trial Evaluating Complications and Complication-Related Removal of Arm-Situated Power-Injectable and Non-Power–Injectable Totally Implanted Venous Access Devices among Cancer Patients. Journal of Vascular and Interventional Radiology, 2018, 29, 648-656.e3.	0.2	5
30	Denoising Low-Dose CT Images Using Multiframe Blind Source Separation and Block Matching Filter. IEEE Transactions on Radiation and Plasma Medical Sciences, 2018, 2, 279-287.	2.7	29
31	A Crossover Comparison of Standard and Telerobotic Approaches to Prenatal Sonography. Journal of Ultrasound in Medicine, 2018, 37, 2603-2612.	0.8	28
32	Canadian Association of Radiologists White Paper on Artificial Intelligence in Radiology. Canadian Association of Radiologists Journal, 2018, 69, 120-135.	1.1	349
33	A Day in the Life of MRI: The Variety and Appropriateness of Exams Being Performed in Canada. Canadian Association of Radiologists Journal, 2018, 69, 151-161.	1.1	2
34	Sharpness-Aware Low-Dose CT Denoising Using Conditional Generative Adversarial Network. Journal of Digital Imaging, 2018, 31, 655-669.	1.6	179
35	Nonrigid motion compensation in compressed sensing reconstruction of cardiac cine MRI. Magnetic Resonance Imaging, 2018, 46, 114-120.	1.0	19
36	Motion-compensated data decomposition algorithm to accelerate dynamic cardiac MRI. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2018, 31, 33-47.	1.1	4

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37	A wavelet gradient sparsity based algorithm for reconstruction of reduced-view tomography datasets obtained with a monochromatic synchrotron-based X-ray source. Computerized Medical Imaging and Graphics, 2018, 69, 69-81.	3.5	7
38	Tailored frequency-escalated primary prophylaxis for severe haemophilia A: results of the 16-year Canadian Hemophilia Prophylaxis Study longitudinal cohort. Lancet Haematology,the, 2018, 5, e252-e260.	2.2	31
39	Development of a domestic animal model for endometriosis: Surgical induction in the dog, pigs, and sheep. Journal of Endometriosis and Pelvic Pain Disorders, 2018, 10, 95-106.	0.3	2
40	Variations in Magnetic Resonance Imaging Provision and Processes among Canadian Academic Centres. Canadian Association of Radiologists Journal, 2017, 68, 56-65.	1.1	6
41	Mechanical and Biological Effects of Ultrasound: A Review of Present Knowledge. Ultrasound in Medicine and Biology, 2017, 43, 1085-1104.	0.7	180
42	Potential of propagation-based synchrotron X-ray phase-contrast computed tomography for cardiac tissue engineering. Journal of Synchrotron Radiation, 2017, 24, 842-853.	1.0	8
43	Thyroid Nodule Classification in Ultrasound Images by Fine-Tuning Deep Convolutional Neural Network. Journal of Digital Imaging, 2017, 30, 477-486.	1.6	289
44	Performance evaluation of denoising based approximate message passing (D-AMP) algorithm from noisy under-sampled CT images. , 2017, , .		0
45	Composite pulses for RF phase encoded MRI: A simulation study. Magnetic Resonance Imaging, 2017, 36, 40-48.	1.0	5
46	Space-invariant signature algorithm processing of ultrasound images for the detection and localization of early abnormalities in animal tissues. , 2017, , .		0
47	Space-Invariant Signature Algorithm: A space-variance approach for the detection and localization of early abnormalities in liquid vibrating active systems. , 2017, , .		0
48	A sparsity-based iterative algorithm for reconstruction of micro-CT images from highly undersampled projection datasets obtained with a synchrotron X-ray source. Review of Scientific Instruments, 2016, 87, 123701.	0.6	4
49	Presurgical language mapping in epilepsy: Using fMRI of reading to identify functional reorganization in a patient with long-standing temporal lobe epilepsy. Epilepsy & Behavior Case Reports, 2016, 5, 6-10.	1.5	15
50	Least squares reconstruction of non-linear RF phase encoded MR data. Magnetic Resonance Imaging, 2016, 34, 951-963.	1.0	6
51	A simple method for determining split renal function from dynamic 99mTc-MAG3 scintigraphic data. European Journal of Nuclear Medicine and Molecular Imaging, 2016, 43, 550-558.	3.3	12
52	Iterative Computed Tomography Reconstruction from Sparse-View Data. Journal of Medical Imaging and Health Informatics, 2016, 6, 34-46.	0.2	6
53	Attentional Network Differences Between Migraineurs and Non-migraine Controls: fMRI Evidence. Brain Topography, 2016, 29, 419-428.	0.8	31
54	Effect of Day Optimizing Throughput (Dot) Knee Software Implementation on Magnetic Resonance Imaging Workflow Efficiency. Journal of Medical Imaging and Radiation Sciences, 2015, 46, 420-426.	0.2	2

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55	Application of analyzer based X-ray imaging technique for detection of ultrasound induced cavitation bubbles from a physical therapy unit. BioMedical Engineering OnLine, 2015, 14, 91.	1.3	8
56	Pixel level jointed sparse representation with RPCA image fusion algorithm. , 2015, , .		11
57	A 3D semi-automated co-segmentation method for improved tumor target delineation in 3D PET/CT imaging. , 2015, , .		0
58	Finding the Truth in Medical Imaging: Painting the Picture of Appropriateness for Magnetic Resonance Imaging in Canada. Canadian Association of Radiologists Journal, 2015, 66, 323-331.	1.1	7
59	Inclusion of Attentional Networks in the Pre-Surgical Neuroimaging Assessment of a Large Deep Hemispheric Cavernous Malformation: An fMRI Case Report. Cerebrovascular Diseases, 2015, 39, 202-208.	0.8	9
60	Computed tomography image denoising by learning to separate morphological diversity. , 2015, , .		2
61	Compressed sensing reconstruction of cardiac cine MRI using golden angle spiral trajectories. Journal of Magnetic Resonance, 2015, 260, 10-19.	1.2	21
62	Design of a smart-device and FPGA based wireless capsule endoscopic system. Sensors and Actuators A: Physical, 2015, 221, 77-87.	2.0	15
63	An Iterative Image Reconstruction for Differential X-ray Phase-contrast Computed Tomography. Journal of Fiber Bioengineering and Informatics, 2015, 8, 521-528.	0.2	0
64	Change detection of medical images using dictionary learning techniques and principal component analysis. Journal of Medical Imaging, 2014, 1, 024502.	0.8	12
65	Bacterial Contamination of Ultrasound Probes at a Tertiary Referral University Medical Center. American Journal of Roentgenology, 2014, 203, 928-932.	1.0	19
66	Medical image fusion based on joint sparse method. , 2014, , .		3
67	MR image reconstruction based on framelets and nonlocal total variation using split Bregman method. International Journal of Computer Assisted Radiology and Surgery, 2014, 9, 459-472.	1.7	6
68	Accelerating dynamic MRI by compressed sensing reconstruction from undersampled k-t space with spiral trajectories. , 2014, , .		1
69	EigenBlock algorithm for change detection â€" An application of adaptive dictionary learning techniques. Journal of Computational Science, 2014, 5, 527-535.	1.5	3
70	An Adaptive Approach to Learn Overcomplete Dictionaries With Efficient Numbers of Elements. IEEE Transactions on Signal Processing, 2014, 62, 3272-3283.	3.2	24
71	Multiple regularization based MRI reconstruction. Signal Processing, 2014, 103, 103-113.	2.1	11
72	A Novel <i>m</i>CAD for pediatric metabolic brain diseases incorporating DW imaging and MR spectroscopy. Expert Systems, 2013, 30, 21-33.	2.9	2

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73	Iterative method for CT image reconstruction from reduced number of projection views. , 2013, , .		2
74	Evaluation of compressed sensing in seismocardiogram (SCG) systems. , 2013, , .		3
75	Micro-CT image reconstruction based on alternating direction augmented Lagrangian method and total variation. Computerized Medical Imaging and Graphics, 2013, 37, 419-429.	3.5	3
76	MULTI-STAGE OMP sparse coding using local matching pursuit atoms selection. , 2013, , .		5
77	MR Image Reconstruction Based on Iterative Split Bregman Algorithm and Nonlocal Total Variation. Computational and Mathematical Methods in Medicine, 2013, 2013, 1-16.	0.7	9
78	BOLD MRI at 1.5 Tesla in juvenile idiopathic arthritis: preliminary experience. Clinics, 2013, 68, 721-724.	0.6	0
79	Continuous negative abdominal distension augments recruitment of atelectatic lung*. Critical Care Medicine, 2012, 40, 1864-1872.	0.4	17
80	CT image reconstruction from partial angular measurements via compressed sensing. , 2012, , .		1
81	A fast model-based prostate boundary segmentation using normalized cross-correlation and representative patterns in ultrasound images. , 2012, , .		1
82	A novel automated approach for segmenting lateral ventricle in MR images of the brain using sparse representation classification and dictionary learning. , 2012, , .		3
83	Fully Automated Model-Based Prostate Boundary Segmentation Using Markov Random Field in Ultrasound Images. , 2012, , .		1
84	Thresholding-Based Image Denoising Using Two-Dimensional S-Transform. , 2012, , .		2
85	Quality assurance: a comparison study of radiographic exposure for neonatal chest radiographs at 4 academic hospitals. Pediatric Radiology, 2012, 42, 668-673.	1.1	14
86	Value of postmortem thoracic CT over radiography in imaging of pediatric rib fractures. Pediatric Radiology, 2011, 41, 736-748.	1.1	54
87	Whole-body MR angiography: initial experience in imaging pediatric vasculopathy. Pediatric Radiology, 2011, 41, 769-778.	1.1	8
88	Utility of MRI in the follow-up of pyogenic spinal infection in children. Pediatric Radiology, 2010, 40, 118-130.	1.1	14
89	Unusual association of alveolar rhabdomyosarcoma with pancreatic metastasis: emerging role of PET-CT in tumor staging. Pediatric Radiology, 2010, 40, 1380-1386.	1.1	27
90	Magnetic resonance imaging of clinically suspected Salter–Harris I fracture of the distal fibula. Injury, 2010, 41, 852-856.	0.7	54

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91	A fast expert system for electrocardiogram arrhythmia detection. Expert Systems, 2010, 27, 180-200.	2.9	10
92	Pediatric Musculoskeletal Imaging at 3 Tesla. Seminars in Musculoskeletal Radiology, 2009, 13, 181-195.	0.4	8
93	Complex Combined Vascular Malformations and Vascular Malformation Syndromes Affecting the Extremities in Children. Seminars in Musculoskeletal Radiology, 2009, 13, 255-276.	0.4	35
94	Imaging of<i>SHOX</i>-Associated Anomalies. Seminars in Musculoskeletal Radiology, 2009, 13, 236-254.	0.4	10
95	Extremity Vascular Anomalies in Children: Introduction, Classification, and Imaging. Seminars in Musculoskeletal Radiology, 2009, 13, 210-235.	0.4	20
96	Pediatric Musculoskeletal Imaging. Seminars in Musculoskeletal Radiology, 2009, 13, 157-157.	0.4	4
97	The optimal linear transformation-based fMRI feature space analysis. Medical and Biological Engineering and Computing, 2009, 47, 1119-1129.	1.6	3
98	Use of dynamic CT in acute respiratory distress syndrome (ARDS) with comparison of positive and negative pressure ventilation. European Radiology, 2009, 19, 50-57.	2.3	18
99	An Autoinflammatory Disease with Deficiency of the Interleukin-1â€"Receptor Antagonist. New England Journal of Medicine, 2009, 360, 2426-2437.	13.9	892
100	Sinus histiocytosis with massive lymphadenopathy (Rosai-Dorfman disease): a clinicoradiological profile of three cases including two with skeletal disease. Pediatric Radiology, 2008, 38, 721-728.	1.1	32
101	Primitive neuroectodermal tumour (PNET) of the kidney: a rare renal tumour in adolescents with seemingly characteristic radiological features. Pediatric Radiology, 2008, 38, 1089-1094.	1.1	29
102	Negative-Pressure Ventilation. American Journal of Respiratory and Critical Care Medicine, 2008, 177, 412-418.	2.5	67
103	A Randomized, Controlled Trial of a Removable Brace Versus Casting in Children With Low-Risk Ankle Fractures. Pediatrics, 2007, 119, e1256-e1263.	1.0	91
104	Radiologic Investigation of Rheumatic Diseases. Rheumatic Disease Clinics of North America, 2007, 33, 403-440.	0.8	34
105	Effect of a sustained inflation on regional distribution of gas and perfluorocarbon during partial liquid ventilation. Pediatric Pulmonology, 2007, 42, 204-209.	1.0	4
106	Evaluation of the Utility of Radiography in Acute Bronchiolitis. Journal of Pediatrics, 2007, 150, 429-433.	0.9	133
107	Pamidronate treatment of chronic noninfectious inflammatory lesions of the mandible in children. Journal of Rheumatology, 2007, 34, 1585-9.	1.0	55
108	Pulmonary Langerhans cell histiocytosis: A variable disease in childhood. Pediatric Blood and Cancer, 2006, 47, 889-893.	0.8	72

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109	MRI of traumatic patellar dislocation in children. Pediatric Radiology, 2006, 36, 1163-1170.	1.1	88
110	Atelectasis Causes Alveolar Injury in Nonatelectatic Lung Regions. American Journal of Respiratory and Critical Care Medicine, 2006, 174, 279-289.	2.5	202
111	Dynamic Contrast-Enhanced MRI Quantification of Synovium Microcirculation in Experimental Arthritis. American Journal of Roentgenology, 2006, 186, 1165-1171.	1.0	17
112	The relationship between scimitar syndrome, so-called scimitar variant, meandering right pulmonary vein, horseshoe lung and pulmonary arterial sling. Cardiology in the Young, 2006, 16, 300-304.	0.4	23
113	Cost-effectiveness analysis of weekday and weeknight or weekend shifts for assessment of appendicitis. Pediatric Radiology, 2005, 35, 1186-1195.	1.1	20
114	Extranodal Rosai-Dorfman Disease with Multifocal Bone and Epidural Involvement Causing Recurrent Spinal Cord Compression. Pediatric and Developmental Pathology, 2005, 8, 593-598.	0.5	32
115	Insulin Sensitivity and Î²-Cell Function in Protease Inhibitor-Treated and -Naive Human Immunodeficiency Virus-Infected Children. Journal of Clinical Endocrinology and Metabolism, 2005, 90, 168-174.	1.8	44
116	X-ray bone fracture segmentation by incorporating global shape model priors into geodesic active contours. International Congress Series, 2004, 1268, 219-224.	0.2	14
117	Children Hospitalized With Severe Acute Respiratory Syndrome-Related Illness in Toronto. Pediatrics, 2003, 112, e261-e261.	1.0	105
118	Serum lipids, glucose homeostasis and abdominal adipose tissue distribution in protease inhibitor-treated and naive HIV-infected children. Aids, 2003, 17, 1319-1327.	1.0	44
119	Pneumomediastinum and subcutaneous emphysema in an 18-month-old child. Journal of Pediatrics, 2002, 141, 116-120.	0.9	21
120	Sensitivity of a clinical examination to predict need for radiography in children with ankle injuries: a prospective study. Lancet, The, 2001, 358, 2118-2121.	6.3	94
121	Development and Duration of Radiographic Signs of Bone Healing in Children. American Journal of Roentgenology, 2000, 175, 75-78.	1.0	106
122	MR imaging of paediatric uterovaginal anomalies. Pediatric Radiology, 1999, 29, 163-170.	1.1	58
123	Infantile myositis presenting in the neonatal period. Brain and Development, 1996, 18, 415-419.	0.6	12
124	Reliability of the chest radiograph in the diagnosis of lower respiratory infections in young children. Pediatric Infectious Disease Journal, 1996, 15, 600-604.	1.1	150
125	Thrombosis of the portal venous system after splenectomy for pediatric hematologic disease. Journal of Pediatric Surgery, 1993, 28, 1109-1112.	0.8	77
126	MR Evaluation of the Temporomandibular Joint in Juvenile Rheumatoid Arthritis. Journal of Computer Assisted Tomography, 1993, 17, 449-454.	0.5	43

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127	Potentially Misleading Bone Scan Findings in Patients With Hepatoblastoma. Clinical Nuclear Medicine, 1993, 18, 1026-1031.	0.7	21
128	Gastric-Outlet Obstruction Induced by Prostaglandin Therapy in Neonates. New England Journal of Medicine, 1992, 327, 505-510.	13.9	103
129	Spontaneous Pneumothorax in Cystic Adenomatoid Malformation. Chest, 1991, 99, 1292-1293.	0.4	26