Curtis P Langlotz

List of Publications by Year
in descending order

106 papers	8,506 citations	57631 44 h-index	48187 88 g-index
108 all docs	108 docs citations	108 times ranked	8586 citing authors

#	Article	IF	Citations
1	CheXpert: A Large Chest Radiograph Dataset with Uncertainty Labels and Expert Comparison. Proceedings of the AAAI Conference on Artificial Intelligence, 2019, 33, 590-597.	3.6	954
2	Deep learning for chest radiograph diagnosis: A retrospective comparison of the CheXNeXt algorithm to practicing radiologists. PLoS Medicine, 2018, 15, e1002686.	3.9	773
3	Deep-learning-assisted diagnosis for knee magnetic resonance imaging: Development and retrospective validation of MRNet. PLoS Medicine, 2018, 15, e1002699.	3.9	409
4	Video-based AI for beat-to-beat assessment of cardiac function. Nature, 2020, 580, 252-256.	13.7	393
5	RadLex: A New Method for Indexing Online Educational Materials. Radiographics, 2006, 26, 1595-1597.	1.4	356
6	Performance of a Deep-Learning Neural Network Model in Assessing Skeletal Maturity on Pediatric Hand Radiographs. Radiology, 2018, 287, 313-322.	3.6	327
7	A Roadmap for Foundational Research on Artificial Intelligence in Medical Imaging: From the 2018 NIH/RSNA/ACR/The Academy Workshop. Radiology, 2019, 291, 781-791.	3.6	241
8	Deep Learning in Neuroradiology. American Journal of Neuroradiology, 2018, 39, 1776-1784.	1.2	222
9	Toward Best Practices in Radiology Reporting. Radiology, 2009, 252, 852-856.	3.6	186
10	Structured Reporting: Patient Care Enhancement or Productivity Nightmare?. Radiology, 2008, 249, 739-747.	3.6	183
11	Cross-type biomedical named entity recognition with deep multi-task learning. Bioinformatics, 2019, 35, 1745-1752.	1.8	182
12	Acute Appendicitis: Comparison of Helical CT Diagnosis—Focused Technique with Oral Contrast Material versus Nonfocused Technique with Oral and Intravenous Contrast Material. Radiology, 2001, 220, 683-690.	3.6	158
13	Comparative effectiveness of convolutional neural network (CNN) and recurrent neural network (RNN) architectures for radiology text report classification. Artificial Intelligence in Medicine, 2019, 97, 79-88.	3.8	158
14	Impact of a deep learning assistant on the histopathologic classification of liver cancer. Npj Digital Medicine, 2020, 3, 23.	5.7	156
15	Deep Learning to Classify Radiology Free-Text Reports. Radiology, 2018, 286, 845-852.	3.6	154
16	Assessment of Convolutional Neural Networks for Automated Classification of Chest Radiographs. Radiology, 2019, 290, 537-544.	3.6	142
17	Information extraction from multi-institutional radiology reports. Artificial Intelligence in Medicine, 2016, 66, 29-39.	3.8	122
18	Integrating artificial intelligence into the clinical practice of radiology: challenges and recommendations. European Radiology, 2020, 30, 3576-3584.	2.3	113

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19	Will Artificial Intelligence Replace Radiologists?. Radiology: Artificial Intelligence, 2019, 1, e190058.	3.0	107
20	Fundamental Measures of Diagnostic Examination Performance: Usefulness for Clinical Decision Making and Research. Radiology, 2003, 228, 3-9.	3.6	106
21	Diagnosis of Primary Versus Secondary Achalasia. American Journal of Roentgenology, 2000, 175, 727-731.	1.0	103
22	A framework for improving radiology reporting. Journal of the American College of Radiology, 2005, 2, 159-167.	0.9	103
23	Adapting a consultation system to critique user plans. International Journal of Man-Machine Studies, 1983, 19, 479-496.	0.7	101
24	Ethics of Using and Sharing Clinical Imaging Data for Artificial Intelligence: A Proposed Framework. Radiology, 2020, 295, 675-682.	3.6	96
25	Human–machine partnership with artificial intelligence for chest radiograph diagnosis. Npj Digital Medicine, 2019, 2, 111.	5.7	94
26	CD4 T Lymphocyte Count and the Radiographic Presentation of Pulmonary Tuberculosis. Chest, 1995, 107, 74-80.	0.4	91
27	A Road Map for Translational Research on Artificial Intelligence in Medical Imaging: From the 2018 National Institutes of Health/RSNA/ACR/The Academy Workshop. Journal of the American College of Radiology, 2019, 16, 1179-1189.	0.9	83
28	Implications of Direct Patient Online Access to Radiology Reports Through Patient Web Portals. Journal of the American College of Radiology, 2016, 13, 1608-1614.	0.9	74
29	Correlation of Lesion Appearance and Histologic Findings for the Nodes of a Breast MR Imaging Interpretation Model. Radiographics, 1999, 19, 79-92.	1.4	72
30	Regulatory Frameworks for Development and Evaluation of Artificial Intelligence–Based Diagnostic Imaging Algorithms: Summary and Recommendations. Journal of the American College of Radiology, 2021, 18, 413-424.	0.9	69
31	Accuracy of MR imaging for staging prostate cancer: A meta-analysis to examine the effect of technologic change. Academic Radiology, 2001, 8, 149-157.	1.3	68
32	Comparison of Natural Language Processing Rules-based and Machine-learning Systems to Identify Lumbar Spine Imaging Findings Related to Low Back Pain. Academic Radiology, 2018, 25, 1422-1432.	1.3	63
33	Biomedical and clinical English model packages for the Stanza Python NLP library. Journal of the American Medical Informatics Association: JAMIA, 2021, 28, 1892-1899.	2.2	63
34	Accuracy of MR imaging in the work-up of suspicious breast lesions: A diagnostic meta-analysis. Academic Radiology, 1999, 6, 387-397.	1.3	62
35	Structured Radiology Reporting: Are We There Yet?. Radiology, 2009, 253, 23-25.	3.6	61
36	AppendiXNet: Deep Learning for Diagnosis of Appendicitis from A Small Dataset of CT Exams Using Video Pretraining. Scientific Reports, 2020, 10, 3958.	1.6	60

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37	Automated coronary calcium scoring using deep learning with multicenter external validation. Npj Digital Medicine, 2021, 4, 88.	5.7	59
38	"Chasing a Ghost": Factors that Influence Primary Care Physicians to Follow Up on Incidental Imaging Findings. Radiology, 2016, 281, 567-573.	3.6	52
39	Bone Tumor Diagnosis Using a Naïve Bayesian Model of Demographic and Radiographic Features. Journal of Digital Imaging, 2017, 30, 640-647.	1.6	49
40	Mentoring the Mentors: Aligning Mentor and Mentee Expectations. Academic Radiology, 2006, 13, 556-561.	1.3	48
41	Assessment of a Bolus-tracking Technique in Helical Renal CT to Optimize Nephrographic Phase Imaging. Radiology, 1999, 211, 87-94.	3.6	46
42	Cost-effectiveness of MR Imaging and Core-Needle Biopsy in the Preoperative Work-up of Suspicious Breast Lesions. Radiology, 1999, 213, 39-49.	3.6	46
43	Automatic Structuring of Radiology Reports: Harbinger of a Second Information Revolution in Radiology. Radiology, 2002, 224, 5-7.	3.6	46
44	Automated Detection of Critical Results in Radiology Reports. Journal of Digital Imaging, 2012, 25, 30-36.	1.6	46
45	The Costs of CT Procedures in an Academic Radiology Department Determined by an Activity-Based Costing (ABC) Method. Journal of Computer Assisted Tomography, 2000, 24, 813-823.	0.5	44
46	Prospective Deployment of Deep Learning in MRI: A Framework for Important Considerations, Challenges, and Recommendations for Best Practices. Journal of Magnetic Resonance Imaging, 2021, 54, 357-371.	1.9	44
47	The Completeness of Existing Lexicons for Representing Radiology Report Information. Journal of Digital Imaging, 2002, 15, 201-205.	1.6	43
48	Ten Commandments for Effective Clinical Decision Support for Imaging: Enabling Evidence-Based Practice to Improve Quality and Reduce Waste. American Journal of Roentgenology, 2014, 203, 945-951.	1.0	43
49	Artificial Intelligence Algorithm Improves Radiologist Performance in Skeletal Age Assessment: A Prospective Multicenter Randomized Controlled Trial. Radiology, 2021, 301, 692-699.	3.6	43
50	A therapy planning architecture that combines decision theory and artificial intelligence techniques. Journal of Biomedical Informatics, 1987, 20, 279-303.	0.7	40
51	Radiologist Use of and Perceived Need for Patient Data Access. Journal of Digital Imaging, 2009, 22, 357-362.	1.6	38
52	Performance of a Machine Learning Classifier of Knee MRI Reports in Two Large Academic Radiology Practices: A Tool to Estimate Diagnostic Yield. American Journal of Roentgenology, 2017, 208, 750-753.	1.0	38
53	The Project Baseline Health Study: a step towards a broader mission to map human health. Npj Digital Medicine, 2020, 3, 84.	5.7	38
54	Prostate Cancer. American Journal of Roentgenology, 2001, 176, 17-22.	1.0	35

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55	Characterization of Change and Significance for Clinical Findings in Radiology Reports Through Natural Language Processing. Journal of Digital Imaging, 2017, 30, 314-322.	1.6	35
56	Unsupervised Topic Modeling in a Large Free Text Radiology Report Repository. Journal of Digital Imaging, 2016, 29, 59-62.	1.6	32
57	Predicting post-operative right ventricular failure using video-based deep learning. Nature Communications, 2021, 12, 5192.	5.8	32
58	Assessment of Follow-up Completeness and Notification Preferences for Imaging Findings of Possible Cancer. Academic Radiology, 2014, 21, 1579-1586.	1.3	31
59	Accuracy of CT angiography versus pulmonary angiography in the diagnosis of acute pulmonary embolism: Evaluation of the literature with summary ROC curve analysis. Academic Radiology, 2000, 7, 786-797.	1.3	30
60	Using Natural Language Processing of Free-Text Radiology Reports to Identify Type 1 Modic Endplate Changes. Journal of Digital Imaging, 2018, 31, 84-90.	1.6	29
61	Designing clinically translatable artificial intelligence systems for high-dimensional medical imaging. Nature Machine Intelligence, 2021, 3, 929-935.	8.3	29
62	Reperfusion Edema After Thromboendarterectomy. Journal of Thoracic Imaging, 1998, 13, 178-183.	0.8	28
63	Clinical decision support increases diagnostic yield of computed tomography for suspected pulmonary embolism. American Journal of Emergency Medicine, 2018, 36, 540-544.	0.7	28
64	JOURNAL CLUB: Predictors of Provider Response to Clinical Decision Support: Lessons Learned From the Medicare Imaging Demonstration. American Journal of Roentgenology, 2017, 208, 351-357.	1.0	27
65	Use of Radiology Procedure Codes in Health Care: The Need for Standardization and Structure. Radiographics, 2017, 37, 1099-1110.	1.4	26
66	Effect of Clinical Decision Support–Generated Report Cards Versus Real-Time Alerts on Primary Care Provider Guideline Adherence for Low Back Pain Outpatient Lumbar Spine MRI Orders. American Journal of Roentgenology, 2019, 212, 386-394.	1.0	26
67	Informatics in Radiology: An Information Model of the DICOM Standard. Radiographics, 2011, 31, 295-304.	1.4	25
68	True "meaningful use": technology meets both patient and provider needs. American Journal of Managed Care, 2015, 21, e329-37.	0.8	25
69	A picture archival and communication system shortens delays in obtaining radiographic information in a medical intensive care unit. Critical Care Medicine, 2000, 28, 1006-1013.	0.4	24
70	A Methodology for Generating Computer-based Explanations of Decision-theoretic Advice. Medical Decision Making, 1988, 8, 290-303.	1.2	23
71	Economic consequences of diagnostic imaging for vocal cord paralysis. Academic Radiology, 2001, 8, 137-148.	1.3	23
72	The IR Radlex Project: An Interventional Radiology Lexicon—A Collaborative Project of the Radiological Society of North America and the Society of Interventional Radiology. Journal of Vascular and Interventional Radiology, 2009, 20, 433-435.	0.2	23

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73	Implementation of an Automated Radiology Recommendation-Tracking Engine for Abdominal Imaging Findings of Possible Cancer. Journal of the American College of Radiology, 2017, 14, 629-636.	0.9	23
74	Code Abdomen: An Assessment Coding Scheme for Abdominal Imaging Findings Possibly Representing Cancer. Journal of the American College of Radiology, 2015, 12, 947-950.	0.9	22
75	Automated Detection of Radiology Reports that Document Non-routine Communication of Critical or Significant Results. Journal of Digital Imaging, 2010, 23, 647-657.	1.6	21
76	Conversion of Radiology Reporting Templates to the MRRT Standard. Journal of Digital Imaging, 2015, 28, 528-536.	1.6	21
77	ACR BI-RADSÂ® for Breast Imaging Communication: A Roadmap for the Rest of Radiology. Journal of the American College of Radiology, 2009, 6, 861-863.	0.9	20
78	Expanding a radiology lexicon using contextual patterns in radiology reports. Journal of the American Medical Informatics Association: JAMIA, 2018, 25, 679-685.	2.2	20
79	The Diagnostic and Economic Yield of Neuroimaging in Neuro-ophthalmology. Journal of Neuro-Ophthalmology, 2012, 32, 139-144.	0.4	17
80	Automated Extraction of Critical Test Values and Communications from Unstructured Radiology Reports: An Analysis of 9.3 Million Reports from 1990 to 2011. Radiology, 2012, 265, 809-818.	3.6	17
81	A methodology for the economic assessment of picture archiving and communication systems. Journal of Digital Imaging, 1995, 8, 95-102.	1.6	16
82	Predicting High Imaging Utilization Based on Initial Radiology Reports:. Academic Radiology, 2016, 23, 84-89.	1.3	16
83	The Role of Radiology in the Diagnostic Process: Information, Communication, and Teamwork. American Journal of Roentgenology, 2017, 209, 992-1000.	1.0	16
84	Optimization of Radiology Reports for Intensive Care Unit Portable Chest Radiographs. Journal of Thoracic Imaging, 2016, 31, 43-48.	0.8	15
85	The LOINC RSNA radiology playbook - a unified terminology for radiology procedures. Journal of the American Medical Informatics Association: JAMIA, 2018, 25, 885-893.	2.2	14
86	Visualization of Areae Gastricae on Double-Contrast Upper Gastrointestinal Radiography. American Journal of Roentgenology, 2001, 177, 61-63.	1.0	13
87	Comparison of Two Methods to Transmit Clinical History Information From Referring Providers to Radiologists. Journal of the American College of Radiology, 2009, 6, 795-799.	0.9	12
88	Improving Cancer Diagnosis and Care: Patient Access to Oncologic Imaging Expertise. Journal of Clinical Oncology, 2019, 37, 1690-1694.	0.8	12
89	Medicare Imaging Demonstration: Assessing Attributes of Appropriate Use Criteria and Their Influence on Ordering Behavior. American Journal of Roentgenology, 2017, 208, 1051-1057.	1.0	11
90	Fostering a Healthy AI Ecosystem for Radiology: Conclusions of the 2018 RSNA Summit on AI in Radiology. Radiology: Artificial Intelligence, 2019, 1, 190021.	3.0	11

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91	Patient Preference for Magnetic Resonance Versus Conventional Angiography. Investigative Radiology, 1998, 33, 553-559.	3.5	11
92	Development and Validation of Queries Using Structured Query Language (SQL) to Determine the Utilization of Comparison Imaging in Radiology Reports Stored on PACS. Journal of Digital Imaging, 2006, 19, 52-68.	1.6	10
93	Why Isn't There More High-fidelity Simulation Training in Diagnostic Radiology? Results of a Survey of Academic Radiologists. Academic Radiology, 2016, 23, 870-876.	1.3	10
94	Documentation of Nonroutine Communications of Critical or Significant Radiology Results: A Multiyear Experience at a Tertiary Hospital. Journal of the American College of Radiology, 2010, 7, 782-790.	0.9	8
95	Meaningful Use for Radiology: Current Status and Future Directions. Radiology, 2013, 269, 318-321.	3.6	7
96	Long-term survival in patients with post-LVAD right ventricular failure: multi-state modelling with competing outcomes of heart transplant. Journal of Heart and Lung Transplantation, 2021, 40, 778-785.	0.3	7
97	Using Sonography to Examine Adult Patients at an Academic Medical Center: Have Usage Patterns Changed with the Expansion of Managed Care?. American Journal of Roentgenology, 2002, 179, 1395-1399.	1.0	6
98	Health IT vendors and the academic community: The 2014 ACMI debate. Journal of Biomedical Informatics, 2016, 60, 365-375.	2.5	6
99	Moving Toward Seamless Interinstitutional Electronic Image Transfer. Journal of the American College of Radiology, 2022, 19, 460-468.	0.9	6
100	The feasibility of axiomatically-based expert systems. Computer Methods and Programs in Biomedicine, 1989, 30, 85-95.	2.6	5
101	Predictors of initial 18F-fluorodeoxyglucose-positron emission tomography indication among patients with colorectal cancer. Nuclear Medicine Communications, 2012, 33, 739-746.	0.5	2
102	Optimizing the Breast Imaging Report for Today and Tomorrow. Journal of Breast Imaging, 0, , .	0.5	2
103	Adapting a consultation system to critique user plans. Journal of Medical Systems, 1984, 8, 215-216.	2.2	1
104	Beyond the <i>AJR</i>: â€œDeep Learning Using Chest Radiographs to Identify High-Risk Smokers for Lung Cancer Screening Computed Tomography: Development and Validation of a Prediction Modelâ€• American Journal of Roentgenology, 2021, 217, 521-521.	1.0	1
105	Dr Langlotz and colleagues respond. Radiology, 1998, 208, 555-556.	3.6	0
106	Readings in clinical imaging research: A structured bibliography. Academic Radiology, 2000, 7, 880-890.	1.3	0