Mohamed Marwan

List of Publications by Year
in descending order

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80 papers	7,338 citations	109321 35 h-index	69250 77 g-index
80 all docs	80 docs citations	80 times ranked	5637 citing authors

#	Article	IF	Citations
1	Diagnostic Performance of Noninvasive Fractional Flow Reserve Derived From CoronaryÂComputed Tomography Angiography in Suspected Coronary Artery Disease. Journal of the American College of Cardiology, 2014, 63, 1145-1155.	2.8	1,240
2	SCCT guidelines for the performance and acquisition of coronary computed tomographic angiography: A report of the Society of Cardiovascular Computed Tomography Guidelines Committee. Journal of Cardiovascular Computed Tomography, 2016, 10, 435-449.	1.3	663
3	Non-invasive detection of coronary inflammation using computed tomography and prediction of residual cardiovascular risk (the CRISP CT study): a post-hoc analysis of prospective outcome data. Lancet, The, 2018, 392, 929-939.	13.7	589
4	Coronary computed tomography angiography with a consistent dose below 1 mSv using prospectively electrocardiogram-triggered high-pitch spiral acquisition. European Heart Journal, 2010, 31, 340-346.	2.2	542
5	Computed Tomography Imaging in the Context of Transcatheter Aortic Valve Implantation (TAVI)/Transcatheter Aortic Valve Replacement (TAVR). JACC: Cardiovascular Imaging, 2019, 12, 1-24.	5.3	310
6	A novel machine learning-derived radiotranscriptomic signature of perivascular fat improves cardiac risk prediction using coronary CT angiography. European Heart Journal, 2019, 40, 3529-3543.	2.2	268
7	Computed tomography imaging in the context of transcatheter aortic valve implantation (TAVI) / transcatheter aortic valve replacement (TAVR): An expert consensus document of the Society of Cardiovascular Computed Tomography. Journal of Cardiovascular Computed Tomography, 2019, 13, 1-20.	1.3	258
8	High-pitch spiral acquisition: A new scan mode for coronary CT angiography. Journal of Cardiovascular Computed Tomography, 2009, 3, 117-121.	1.3	233
9	Prospectively ECG-triggered high-pitch spiral acquisition for coronary CT angiography using dual source CT: technique and initial experience. European Radiology, 2009, 19, 2576-2583.	4.5	192
10	Pericoronary Adipose Tissue Computed Tomography Attenuation and High-Risk Plaque Characteristics in Acute Coronary Syndrome Compared With Stable Coronary Artery Disease. JAMA Cardiology, 2018, 3, 858.	6.1	186
11	Automated Three-dimensional Quantification of Noncalcified Coronary Plaque from Coronary CT Angiography: Comparison with Intravascular US. Radiology, 2010, 257, 516-522.	7.3	177
12	Characterization of culprit lesions in acute coronary syndromes using coronary dual-source CT angiography. Atherosclerosis, 2010, 211, 437-444.	0.8	163
13	Reduction in radiation exposure in cardiovascular computed tomography imaging: results from the PROspective multicenter registry on radiaTion dose Estimates of cardiac CT angIOgraphy iN daily practice in 2017 (PROTECTION VI). European Heart Journal, 2018, 39, 3715-3723.	2.2	149
14	Detection of Coronary Artery Stenoses by Low-Dose, Prospectively ECG-Triggered, High-Pitch Spiral Coronary CT Angiography. JACC: Cardiovascular Imaging, 2011, 4, 328-337.	5.3	148
15	Epicardial adipose tissue density and volume are related to subclinical atherosclerosis, inflammation and major adverse cardiac events in asymptomatic subjects. Journal of Cardiovascular Computed Tomography, 2018, 12, 67-73.	1.3	143
16	Relationship between changes in pericoronary adipose tissue attenuation and coronary plaque burden quantified from coronary computed tomography angiography. European Heart Journal Cardiovascular Imaging, 2019, 20, 636-643.	1.2	129
17	Image Quality in a Low Radiation Exposure Protocol for Retrospectively ECG-Gated Coronary CT Angiography. American Journal of Roentgenology, 2009, 192, 1045-1050.	2.2	120
18	In vivo CT detection of lipid-rich coronary artery atherosclerotic plaques using quantitative histogram analysis: A head to head comparison with IVUS. Atherosclerosis, 2011, 215, 110-115.	0.8	119

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19	Influence of slice thickness and reconstruction kernel on the computed tomographic attenuation of coronary atherosclerotic plaque. Journal of Cardiovascular Computed Tomography, 2010, 4, 110-115.	1.3	87
20	Deep learning-enabled coronary CT angiography for plaque and stenosis quantification and cardiac risk prediction: an international multicentre study. The Lancet Digital Health, 2022, 4, e256-e265.	12.3	85
21	Fully Automated CT Quantification of Epicardial Adipose Tissue by Deep Learning: A Multicenter Study. Radiology: Artificial Intelligence, 2019, 1, e190045.	5.8	83
22	Prospectively ECG-triggered high-pitch coronary angiography with third-generation dual-source CT at 70 kVp tube voltage: Feasibility, image quality, radiation dose, and effect of iterative reconstruction. Journal of Cardiovascular Computed Tomography, 2014, 8, 418-425.	1.3	81
23	Assessment of coronary artery remodelling by dual-source CT: a head-to-head comparison with intravascular ultrasound. Heart, 2011, 97, 991-997.	2.9	79
24	Very low-dose coronary artery calcium scanning with high-pitch spiral acquisition mode: Comparison between 120-kV and 100-kV tube voltage protocols. Journal of Cardiovascular Computed Tomography, 2013, 7, 32-38.	1.3	75
25	Comparison of quantitative atherosclerotic plaque burden from coronary CT angiography in patients with first acute coronary syndrome and stable coronary artery disease. Journal of Cardiovascular Computed Tomography, 2014, 8, 368-374.	1.3	68
26	Quantification of epicardial fat by computed tomography: Why, when and how?. Journal of Cardiovascular Computed Tomography, 2013, 7, 3-10.	1.3	65
27	Quantification of non-calcified coronary atherosclerotic plaques with dual-source computed tomography: comparison with intravascular ultrasound. Heart, 2010, 96, 610-615.	2.9	59
28	Perivascular Fat Attenuation Index Stratifies Cardiac Risk Associated With High-Risk Plaques in theÂCRISP-CT Study. Journal of the American College of Cardiology, 2020, 76, 755-757.	2.8	59
29	Epicardial adipose tissue volume but not density is an independent predictor for myocardial ischemia. Journal of Cardiovascular Computed Tomography, 2016, 10, 141-149.	1.3	49
30	CT predictors of post-procedural aortic regurgitation in patients referred for transcatheter aortic valve implantation: an analysis of 105 patients. International Journal of Cardiovascular Imaging, 2013, 29, 1191-1198.	1.5	48
31	Diagnostic Performance of Transluminal Attenuation Gradient and Noninvasive Fractional Flow Reserve Derived from 320â€“Detector Row CT Angiography to Diagnose Hemodynamically Significant Coronary Stenosis: An NXT Substudy. Radiology, 2016, 279, 75-83.	7.3	48
32	Accuracy of dual-source computed tomography to identify significant coronary artery disease in patients with atrial fibrillation: comparison with coronary angiography. European Heart Journal, 2010, 31, 2230-2237.	2.2	46
33	CT-based analysis of pericoronary adipose tissue density: Relation to cardiovascular risk factors and epicardial adipose tissue volume. Journal of Cardiovascular Computed Tomography, 2016, 10, 52-60.	1.3	45
34	CT Attenuation of Pericoronary Adipose Tissue in Normal Versus Atherosclerotic Coronary Segments as Defined by Intravascular Ultrasound. Journal of Computer Assisted Tomography, 2017, 41, 762-767.	0.9	45
35	Contrast volume reduction using third generation dual source computed tomography for the evaluation of patients prior to transcatheter aortic valve implantation. European Radiology, 2016, 26, 4497-4504.	4.5	44
36	Non-invasive prediction of hemodynamically significant coronary artery stenoses by contrast density difference in coronary CT angiography. European Journal of Radiology, 2015, 84, 1502-1508.	2.6	36

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37	Automated attenuation-based selection of tube voltage and tube current for coronary CT angiography: Reduction of radiation exposure versus a BMI-based strategy with an expert investigator. Journal of Cardiovascular Computed Tomography, 2013, 7, 303-310.	1.3	34
38	Reproducibility of semi-automatic coronary plaque quantification in coronary CT angiography with sub-mSv radiation dose. Journal of Cardiovascular Computed Tomography, 2016, 10, 114-120.	1.3	34
39	Radiation exposure and image quality in staged low-dose protocols for coronary dual-source CT angiography: a randomized comparison. European Radiology, 2010, 20, 1197-1206.	4.5	33
40	Comparison of invasively measured FFR with FFR derived from coronary CT angiography for detection of lesion-specific ischemia: Results from a PC-based prototype algorithm. Journal of Cardiovascular Computed Tomography, 2018, 12, 101-107.	1.3	31
41	Quantification of epicardial adipose tissue by cardiac CT: Influence of acquisition parameters and contrast enhancement. European Journal of Radiology, 2019, 121, 108732.	2.6	31
42	Association of systemic inflammation with epicardial fat and coronary artery calcification. Inflammation Research, 2015, 64, 313-319.	4.0	30
43	Pericoronary adipose tissue and quantitative global non-calcified plaque characteristics from CT angiography do not differ in matched South Asian, East Asian and European-origin Caucasian patients with stable chest pain. European Journal of Radiology, 2020, 125, 108874.	2.6	29
44	Meta-Analysis of Bioprosthetic Valve Thrombosis After Transcatheter Aortic Valve Implantation. American Journal of Cardiology, 2021, 138, 92-99.	1.6	27
45	Prediction of fluoroscopic angulations for transcatheter aortic valve implantation by CT angiography: influence on procedural parameters. European Heart Journal Cardiovascular Imaging, 2017, 18, jew144.	1.2	26
46	Imaging of the Pericoronary Adipose Tissue (PCAT) Using Cardiac Computed Tomography. Journal of Thoracic Imaging, 2021, 36, 149-161.	1.5	24
47	Radiomics-Based Precision PhenotypingÂIdentifies Unstable Coronary Plaques From Computed Tomography Angiography. JACC: Cardiovascular Imaging, 2022, 15, 859-871.	5.3	24
48	Pericoronary adipose tissue CT attenuation and its association with serum levels of atherosclerosis-relevant inflammatory mediators, coronary calcification and major adverse cardiac events. Journal of Cardiovascular Computed Tomography, 2021, 15, 449-454.	1.3	21
49	Accuracy of dual-source CT to identify significant coronary artery disease in patients with uncontrolled hypertension presenting with chest pain: comparison with coronary angiography. International Journal of Cardiovascular Imaging, 2012, 28, 1173-1180.	1.5	19
50	Influence of the coronary calcium score on the ability to rule out coronary artery stenoses by coronary CT angiography in patients with suspected coronary artery disease. Journal of Cardiovascular Computed Tomography, 2016, 10, 343-350.	1.3	19
51	Reproducibility of coronary plaque detection and characterization using low radiation dose coronary computed tomographic angiography in patients with intermediate likelihood of coronary artery disease (ReSCAN study). International Journal of Cardiovascular Imaging, 2012, 28, 889-899.	1.5	18
52	Coronary Vessel and Luminal Area Measurement Using Dual-Source Computed Tomography in Comparison With Intravascular Ultrasound. Journal of Computer Assisted Tomography, 2011, 35, 113-118.	0.9	17
53	Computer-aided evaluation of low-dose and low-contrast agent third-generation dual-source CT angiography prior to transcatheter aortic valve implantation (TAVI). International Journal of Computer Assisted Radiology and Surgery, 2017, 12, 795-802.	2.8	16
54	Patient-specific predictors of image noise in coronary CT angiography. Journal of Cardiovascular Computed Tomography, 2013, 7, 39-45.	1.3	15

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55	Fractional flow reserve derived from coronary computed tomography angiography: diagnostic performance in hypertensive and diabetic patients. European Heart Journal Cardiovascular Imaging, 2017, 18, 1351-1360.	1.2	15
56	Aortic annulus eccentricity before and after transcatheter aortic valve implantation: Comparison of balloon-expandable and self-expanding prostheses. European Journal of Radiology, 2015, 84, 1242-1248.	2.6	13
57	White Matter Lesions, Carotid and Coronary Atherosclerosis in Late-Onset Depression and Healthy Controls. Psychosomatics, 2016, 57, 369-377.	2.5	13
58	High levels of eicosapentaenoic acid are associated with lower pericoronary adipose tissue attenuation as measured by coronary CTA. Atherosclerosis, 2021, 316, 73-78.	0.8	13
59	Comparison of standard- and high-dose intracoronary adenosine for the measurement of coronary fractional flow reserve (FFR). Clinical Research in Cardiology, 2016, 105, 1003-1010.	3.3	12
60	Multicenter Evaluation of Coronary Dual-Source CT Angiography in Patients with Intermediate Risk of Coronary Artery Stenoses (MEDIC): Study design and rationale. Journal of Cardiovascular Computed Tomography, 2014, 8, 183-188.	1.3	11
61	Interobserver agreement for the detection of atherosclerotic plaque in coronary CT angiography: comparison of two low-dose image acquisition protocols with standard retrospectively ECG-gated reconstruction. European Radiology, 2012, 22, 1529-1536.	4.5	10
62	Cardiac amyloidosis imaged by dual-source computed tomography. Journal of Cardiovascular Computed Tomography, 2008, 2, 403-405.	1.3	9
63	Ultra-low dose comprehensive cardiac CT imaging in a patient with acute myocarditis. Journal of Cardiovascular Computed Tomography, 2014, 8, 475-476.	1.3	9
64	Epicardial fat, cardiovascular risk factors and calcifications in patients with chronic kidney disease. CKJ: Clinical Kidney Journal, 2020, 13, 571-579.	2.9	8
65	Risk Assessment of Coronary Obstruction During Transcatheter Aortic Valve Replacement. JACC: Cardiovascular Interventions, 2022, 15, 496-507.	2.9	8
66	Effect of nonâ€compliant balloon postdilatation on magnesiumâ€based bioresorbable vascular scaffolds. Catheterization and Cardiovascular Interventions, 2019, 93, 202-207.	1.7	6
67	Coronary Plaque Volume and Composition Assessed by Computed Tomography Angiography in Patients With Late-Onset Major Depression. Psychosomatics, 2014, 55, 243-251.	2.5	5
68	German cardiac CT registry: indications, procedural data and clinical consequences in 7061 patients undergoing cardiac computed tomography. International Journal of Cardiovascular Imaging, 2017, 34, 807-819.	1.5	5
69	Computational fluid dynamics: can computed tomography imaging compete with cath-lab physiology?. Cardiovascular Research, 2019, 115, e41-e43.	3.8	5
70	Coronary computed tomography angiography (CCTA) in patients with suspected stable coronary artery disease (CAD): diagnostic impact and clinical consequences in the German Cardiac CT Registry depending on stress test results. International Journal of Cardiovascular Imaging, 2019, 35, 741-748.	1.5	4
71	Optical coherence tomography: influence of contrast concentration on image quality and diagnostic confidence. Heart and Vessels, 2017, 32, 653-659.	1.2	3
72	Determination of optimal fluoroscopic angulations for aorto-coronary ostial interventions from coronary computed tomography angiography. Journal of Cardiovascular Computed Tomography, 2020, 15, 366-371.	1.3	3

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73	Influence of reconstruction kernels on the accuracy of CT-derived fractional flow reserve. European Radiology, 2022, 32, 2604-2610.	4.5	2
74	Differences of inflammatory cytokine profile in patients with vulnerable plaque: A coronary CTA study. Atherosclerosis, 2022, 350, 25-32.	0.8	2
75	Percutaneous coronary intervention of unprotected left main stenoses â€“ Procedural data and outcome depending on SYNTAX I Score. Cardiovascular Revascularization Medicine, 2018, 19, 740-743.	0.8	1
76	Is PCAT CT Attenuation the â€˜GameÂChangerâ€™ in the Prediction of Death and Myocardial Infarction?. JACC: Cardiovascular Imaging, 2021, 14, 1611-1613.	5.3	1
77	The Journal of cardiovascular computed tomography: A year in review 2021. Journal of Cardiovascular Computed Tomography, 2022, , .	1.3	1
78	Role of CT Imaging for Coronary and Non-coronary Interventions. Current Cardiovascular Imaging Reports, 2017, 10, 1.	0.6	0
79	Applicability and procedural success rate of bioresorbable Âvascular scaffolds for percutaneous coronary intervention in an all-comer cohort of 383 consecutive patients. Acta Cardiologica, 2017, 72, 425-432.	0.9	0
80	The Many Uses of Epicardial Fat Measurements. Contemporary Medical Imaging, 2019, , 285-294.	0.4	0