

# Ronak Rajani

## List of Publications by Year in descending order

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Version: 2024-02-01

120  
papers

2,942  
citations

185998

28  
h-index

197535

49  
g-index

122  
all docs

122  
docs citations

122  
times ranked

3706  
citing authors

#	ARTICLE	IF	CITATIONS
1	Computed Tomography Aortic Valve Calcium Scoring in Patients With Aortic Stenosis. <i>Circulation: Cardiovascular Imaging</i> , 2018, 11, e007146.	1.3	251
2	Coronary artery anomalies overview: The normal and the abnormal. <i>World Journal of Radiology</i> , 2016, 8, 537.	0.5	242
3	Early Experience With New Transcatheter Mitral Valve Replacement. <i>Journal of the American College of Cardiology</i> , 2018, 71, 12-21.	1.2	229
4	Prevention of Cardiac Surgery-Associated Acute Kidney Injury by Implementing the KDIGO Guidelines in High-Risk Patients Identified by Biomarkers: The PrevAKI-Multicenter Randomized Controlled Trial. <i>Anesthesia and Analgesia</i> , 2021, 133, 292-302.	1.1	115
5	Does the Routine Availability of CT-Derived FFR Influence Management of Patients With Stable Chest Pain Compared to CT Angiography Alone?. <i>JACC: Cardiovascular Imaging</i> , 2016, 9, 1188-1194.	2.3	90
6	Adult Left Ventricular Noncompaction. <i>JACC: Cardiovascular Imaging</i> , 2014, 7, 1266-1275.	2.3	85
7	Factors influencing left ventricular outflow tract obstruction following a mitral valve or valve ring procedure, part 1. <i>Catheterization and Cardiovascular Interventions</i> , 2015, 86, 747-760.	0.7	83
8	Fractional flow reserve derived from computed tomography coronary angiography in the assessment and management of stable chest pain: the FORECAST randomized trial. <i>European Heart Journal</i> , 2021, 42, 3844-3852.	1.0	74
9	Paravalvular regurgitation one year after transcatheter aortic valve implantation. <i>Catheterization and Cardiovascular Interventions</i> , 2010, 75, 868-872.	0.7	69
10	Relation of Diagonal Ear Lobe Crease to the Presence, Extent, and Severity of Coronary Artery Disease Determined by Coronary Computed Tomography Angiography. <i>American Journal of Cardiology</i> , 2012, 109, 1283-1287.	0.7	67
11	The role of myocardial wall thickness in atrial arrhythmogenesis. <i>Europace</i> , 2016, 18, euw014.	0.7	65
12	Renal denervation in heart failure with preserved ejection fraction (RDT-PEF): a randomized controlled trial. <i>European Journal of Heart Failure</i> , 2016, 18, 703-712.	2.9	62
13	Three-dimensional atrial wall thickness maps to inform catheter ablation procedures for atrial fibrillation. <i>Europace</i> , 2016, 18, 376-383.	0.7	59
14	Relationship of epicardial fat volume to coronary plaque, severe coronary stenosis, and high-risk coronary plaque features assessed by coronary CT angiography. <i>Journal of Cardiovascular Computed Tomography</i> , 2013, 7, 125-132.	0.7	56
15	Predicting the Physiological Effect of Revascularization in Serially Diseased Coronary Arteries. <i>Circulation: Cardiovascular Interventions</i> , 2019, 12, e007577.	1.4	52
16	Treadmill exercise in apparently asymptomatic patients with moderate or severe aortic stenosis: relationship between cardiac index and revealed symptoms. <i>Heart</i> , 2010, 96, 689-695.	1.2	48
17	Comprehensive use of cardiac computed tomography to guide left ventricular lead placement in cardiac resynchronization therapy. <i>Heart Rhythm</i> , 2017, 14, 1364-1372.	0.3	48
18	Personalized computational modeling of left atrial geometry and transmural myofiber architecture. <i>Medical Image Analysis</i> , 2018, 47, 180-190.	7.0	46

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19	Exercise testing in patients with asymptomatic moderate or severe aortic stenosis. <i>Heart</i> , 2018, 104, 1836-1842.	1.2	46
20	Patient-Specific Computer Simulation of Transcatheter Aortic Valve Replacement in Bicuspid Aortic Valve Morphology. <i>Circulation: Cardiovascular Imaging</i> , 2019, 12, e009178.	1.3	42
21	The subcoronary Toronto stentless versus supra-annular Perimount stented replacement aortic valve: Early clinical and hemodynamic results of a randomized comparison in 160 patients. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2006, 131, 878-882.e4.	0.4	41
22	Algorithms for left atrial wall segmentation and thickness " Evaluation on an open-source CT and MRI image database. <i>Medical Image Analysis</i> , 2018, 50, 36-53.	7.0	40
23	A Machine-Learning Framework to Identify Distinct Phenotypes of Aortic Stenosis Severity. <i>JACC: Cardiovascular Imaging</i> , 2021, 14, 1707-1720.	2.3	39
24	Diagnosis and management of iatrogenic cardiac perforation caused by pacemaker and defibrillator leads. <i>Europace</i> , 2017, 19, euw074.	0.7	37
25	Lesion Index-Guided Ablation Facilitates Continuous, Transmural, and Durable Lesions in a Porcine Recovery Model. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2018, 11, e005892.	2.1	37
26	3D whole-heart isotropic sub-millimeter resolution coronary magnetic resonance angiography with non-rigid motion-compensated PROST. <i>Journal of Cardiovascular Magnetic Resonance</i> , 2020, 22, 24.	1.6	37
27	Transcatheter mitral valve replacement in mitral annulus calcification " "The art of computer simulation". <i>Journal of Cardiovascular Computed Tomography</i> , 2018, 12, 153-157.	0.7	33
28	First Reported Case of Transcatheter Mitral Valve Implantation in Mitral Annular Calcification With a Fully Repositionable and Self-Expanding Valve. <i>Circulation: Cardiovascular Interventions</i> , 2015, 8, e003031.	1.4	32
29	Characteristics and outcomes of patients screened for transcatheter mitral valve implantation: <sc>1 year</sc> results from the <sc>CHOICEâ€M</sc> registry. <i>European Journal of Heart Failure</i> , 2022, 24, 887-898.	2.9	32
30	Clinical comparison of sub-mm high-resolution non-contrast coronary CMR angiography against coronary CT angiography in patients with low-intermediate risk of coronary artery disease: a single center trial. <i>Journal of Cardiovascular Magnetic Resonance</i> , 2021, 23, 57.	1.6	28
31	Patient-specific computer simulation for transcatheter cardiac interventions: what a clinician needs to know. <i>Heart</i> , 2019, 105, s21-s27.	1.2	27
32	The noninvasive estimation of central aortic blood pressure in patients with aortic stenosis. <i>Journal of Hypertension</i> , 2008, 26, 2381-2388.	0.3	25
33	Physiology-Guided Management of Serial Coronary Artery Disease. <i>JAMA Cardiology</i> , 2018, 3, 432.	3.0	24
34	Left ventricular outflow obstruction predicts increase in systolic pressure gradients and blood residence time after transcatheter mitral valve replacement. <i>Scientific Reports</i> , 2018, 8, 15540.	1.6	24
35	Emerging role of cardiac computed tomography in heart failure. <i>ESC Heart Failure</i> , 2019, 6, 909-920.	1.4	23
36	The impact of wall thickness and curvature on wall stress in patient-specific electromechanical models of the left atrium. <i>Biomechanics and Modeling in Mechanobiology</i> , 2020, 19, 1015-1034.	1.4	23

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37	Increased pericardial fat accumulation is associated with increased intramyocardial lipid content and duration of highly active antiretroviral therapy exposure in patients infected with human immunodeficiency virus: a 3T cardiovascular magnetic resonance feasibility study. <i>Journal of Cardiovascular Magnetic Resonance</i> , 2015, 17, 91.	1.6	22
38	Doppler echocardiography in normally functioning replacement aortic valves: a review of 129 studies. <i>Journal of Heart Valve Disease</i> , 2007, 16, 519-35.	0.5	22
39	The Peak to Mean Pressure Decrease Ratio: A New Method of Assessing Aortic Stenosis. <i>Journal of the American Society of Echocardiography</i> , 2005, 18, 674-678.	1.2	20
40	Framework for detection and localization of coronary non-calcified plaques in cardiac CTA using mean radial profiles. <i>Computers in Biology and Medicine</i> , 2017, 89, 84-95.	3.9	20
41	Exercise Treadmill Testing in Moderate or Severe Aortic Stenosis: The Left Ventricular Correlates of an Exaggerated Blood Pressure Rise. <i>Journal of the American Heart Association</i> , 2018, 7, e010735.	1.6	19
42	The tricuspid annular plane systolic excursion to systolic pulmonary artery pressure index: Association with all-cause mortality in patients with moderate or severe tricuspid regurgitation. <i>International Journal of Cardiology</i> , 2020, 317, 176-180.	0.8	18
43	Pancreatitis and the broken heart. <i>European Journal of Emergency Medicine</i> , 2010, 17, 27-29.	0.5	17
44	The art of assessing aortic stenosis. <i>Heart</i> , 2012, 98, iv14-iv22.	1.2	17
45	Comparative efficacy testing of Fractional flow reserve by coronary computed tomography for the evaluation of patients with stable chest pain. <i>International Journal of Cardiology</i> , 2015, 183, 173-177.	0.8	16
46	Determinants and clinical significance of aortic stiffness in patients with moderate or severe aortic stenosis. <i>International Journal of Cardiology</i> , 2020, 315, 99-104.	0.8	16
47	Computed Tomography-Derived 3D Modeling to Guide Sizing and Planning of Transcatheter Mitral Valve Interventions. <i>JACC: Cardiovascular Imaging</i> , 2021, 14, 1644-1658.	2.3	16
48	Virtual fractional flow reserve by coronary computed tomography - hope or hype?. <i>EuroIntervention</i> , 2013, 9, 277-284.	1.4	16
49	Patient-Specific Computer Modeling for the Planning of Transcatheter Mitral Valve Replacement. <i>Journal of the American College of Cardiology</i> , 2018, 72, 956-958.	1.2	15
50	The AKI care bundle: all bundle components are created equal—are they?. <i>Intensive Care Medicine</i> , 2022, 48, 242-245.	3.9	15
51	Indirect Annuloplasty to Treat Functional Mitral Regurgitation: Current Results and Future Perspectives. <i>Frontiers in Cardiovascular Medicine</i> , 2019, 6, 60.	1.1	14
52	Antihypertensive treatment with calcium channel blockers in patients with moderate or severe aortic stenosis: Relationship with all-cause mortality. <i>International Journal of Cardiology</i> , 2020, 298, 122-125.	0.8	14
53	Feasibility of intraprocedural integration of cardiac CT to guide left ventricular lead implantation for CRT upgrades. <i>Journal of Cardiovascular Electrophysiology</i> , 2021, 32, 802-812.	0.8	14
54	The role of multi modality imaging in selecting patients and guiding lead placement for the delivery of cardiac resynchronization therapy. <i>Expert Review of Cardiovascular Therapy</i> , 2017, 15, 93-107.	0.6	13

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55	Generation of a cohort of whole-torso cardiac models for assessing the utility of a novel computed shock vector efficiency metric for ICD optimisation. <i>Computers in Biology and Medicine</i> , 2019, 112, 103368.	3.9	13
56	Combined computed tomographic perfusion and mechanics with predicted activation pattern can successfully guide implantation of a wireless endocardial pacing system. <i>Europace</i> , 2020, 22, 298.	0.7	13
57	Fractional Flow Reserve Derived from Computed Tomography Coronary Angiography in the Assessment and Management of Stable Chest Pain: Rationale and Design of the FORECAST Trial. <i>Cardiovascular Revascularization Medicine</i> , 2020, 21, 890-896.	0.3	13
58	Automated quantification of mitral valve geometry on multi-slice computed tomography in patients with dilated cardiomyopathy – Implications for transcatheter mitral valve replacement. <i>Journal of Cardiovascular Computed Tomography</i> , 2018, 12, 329-337.	0.7	12
59	Automated Left Ventricle Ischemic Scar Detection in CT Using Deep Neural Networks. <i>Frontiers in Cardiovascular Medicine</i> , 2021, 8, 655252.	1.1	12
60	Asymptomatic Aortic Stenosis: The Influence of the Systemic Vasculature on Exercise Time. <i>Journal of the American Society of Echocardiography</i> , 2012, 25, 613-619.	1.2	10
61	In-silico pace-mapping using a detailed whole torso model and implanted electronic device electrograms for more efficient ablation planning. <i>Computers in Biology and Medicine</i> , 2020, 125, 104005.	3.9	10
62	A computational investigation into rate-dependant vectorcardiogram changes due to specific fibrosis patterns in non-ischemic dilated cardiomyopathy. <i>Computers in Biology and Medicine</i> , 2020, 123, 103895.	3.9	10
63	B-type natriuretic peptide and tissue doppler for predicting symptoms on treadmill exercise in apparently asymptomatic aortic stenosis. <i>Journal of Heart Valve Disease</i> , 2009, 18, 565-71.	0.5	10
64	A randomized comparison of the Cryolife O <sup>TM</sup> Brien and Toronto stentless replacement aortic valves. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2007, 133, 1045-1050.	0.4	9
65	Non-invasive fractional flow reserve using computed tomographic angiography: where are we now and where are we going?. <i>Heart</i> , 2017, 103, 1216-1222.	1.2	9
66	Rapid early rise in heart rate on treadmill exercise in patients with asymptomatic moderate or severe aortic stenosis: a new prognostic marker?. <i>Open Heart</i> , 2019, 6, e000950.	0.9	9
67	Hypertension in aortic stenosis. <i>Journal of Hypertension</i> , 2019, 37, 2209-2215.	0.3	9
68	Assessment of Right Ventricular Function With CT and Echocardiography in Patients With Severe Acute Respiratory Distress Syndrome on Extracorporeal Membrane Oxygenation. , 2021, 3, e0345.		9
69	The advantages, pitfalls and limitations of guideline-directed medical therapy in patients with valvular heart disease. <i>European Journal of Heart Failure</i> , 2021, 23, 1325-1333.	2.9	9
70	Automated Localization of Focal Ventricular Tachycardia From Simulated Implanted Device Electrograms: A Combined Physics-AI Approach. <i>Frontiers in Physiology</i> , 2021, 12, 682446.	1.3	9
71	Optimizing Image Contrast Display Improves Quantitative Stenosis Measurement in Heavily Calcified Coronary Arterial Segments on Coronary CT Angiography. <i>Academic Radiology</i> , 2014, 21, 797-804.	1.3	8
72	Incremental Value of Diagonal Earlobe Crease to the Diamond-Forrester Classification in Estimating the Probability of Significant Coronary Artery Disease Determined by Computed Tomographic Angiography. <i>American Journal of Cardiology</i> , 2014, 114, 1670-1675.	0.7	8

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73	Iterative Learning of Transcatheter Mitral Valve Replacement in Mitral Valve Annulus Calcification: Management and Prevention of Transcatheter Mitral Valve Replacement Dislocation. <i>Annals of Thoracic Surgery</i> , 2016, 102, e287-e290.	0.7	7
74	Effects of renal denervation on vascular remodelling in patients with heart failure and preserved ejection fraction: A randomised control trial. <i>JRSM Cardiovascular Disease</i> , 2017, 6, 204800401769098.	0.4	7
75	A hybrid energy model for region based curve evolution " Application to CTA coronary segmentation. <i>Computer Methods and Programs in Biomedicine</i> , 2017, 144, 189-202.	2.6	7
76	Development and Testing of an Ultrasound-Compatible Cardiac Phantom for Interventional Procedure Simulation Using Direct Three-Dimensional Printing. <i>3D Printing and Additive Manufacturing</i> , 2020, 7, 269-278.	1.4	7
77	Two-year outcomes from the Mitral Valve Repair Clinical ( MAVERIC ) trial: a novel percutaneous treatment of functional mitral regurgitation. <i>European Journal of Heart Failure</i> , 2021, 23, 1775-1783.	2.9	7
78	Evaluation of aortic stenosis: From Bernoulli and Doppler to Navier-Stokes. <i>Trends in Cardiovascular Medicine</i> , 2021, , .	2.3	7
79	Real-time image integration for transcatheter mitral valve replacement in mitral annular calcification. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2019, 157, e135-e139.	0.4	6
80	Simultaneous Transcatheter Double Valve Treatment of Mediastinal Radiation-Induced Severe Calcific Aortic and Mitral Stenosis. <i>JACC: Case Reports</i> , 2020, 2, 1443-1447.	0.3	6
81	Tracking the motion of intracardiac structures aids the development of future leadless pacing systems. <i>Journal of Cardiovascular Electrophysiology</i> , 2020, 31, 2431-2439.	0.8	6
82	Impact of pulmonary hypertension on outcome in patients with moderate or severe tricuspid regurgitation. <i>Open Heart</i> , 2019, 6, e001104.	0.9	5
83	Sex-differences in aortic stenosis: Effect on functional capacity and prognosis. <i>International Journal of Cardiology</i> , 2020, 304, 130-134.	0.8	5
84	The cardiovascular complications in COVID-19: Focus on acute cardiac injury. <i>Pakistan Journal of Medical Sciences</i> , 2021, 37, 908-912.	0.3	5
85	Multimodality Imaging of Heart Valve Disease. <i>Arquivos Brasileiros De Cardiologia</i> , 2014, 103, 251-63.	0.3	5
86	Left atrial volume index predicts adverse events in asymptomatic moderate or severe aortic stenosis. <i>Echocardiography</i> , 2021, 38, 1893-1899.	0.3	5
87	Improving outcomes in chronic aortic regurgitation: timely diagnosis, access to specialist assessment and earlier surgery. <i>Heart</i> , 2018, 104, 794-795.	1.2	4
88	Specialist valve clinic in a cardiac centre: 10-year experience. <i>Open Heart</i> , 2020, 7, e001262.	0.9	4
89	Guided left ventricular lead placement for cardiac resynchronization therapy: an opportunity for image integration. <i>European Journal of Heart Failure</i> , 2017, 19, 435-435.	2.9	3
90	Standardised computed tomographic assessment of left atrial morphology and tissue thickness in humans. <i>IJC Heart and Vasculature</i> , 2021, 32, 100694.	0.6	3

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91	Hyperparameter optimisation and validation of registration algorithms for measuring regional ventricular deformation using retrospective gated computed tomography images. Scientific Reports, 2021, 11, 5718.	1.6	3
92	Coronavirus Disease 2019 and Heart Failure: A Multiparametric Approach. Cardiac Failure Review, 2020, 6, e22.	1.2	3
93	Deployed but not irretrievable: A novel surgical off-pump technique for parachute device extraction. International Journal of Cardiology, 2016, 204, 66-69.	0.8	2
94	Computational fluid dynamic modelling to determine the hemodynamic effects of implanting a transcatheter mitral valve within the left ventricle. International Journal of Cardiovascular Imaging, 2017, 34, 803-805.	0.7	2
95	Percutaneous Ventricular Restoration Using the Parachute Device: The Parachute III Pressure-Volume Loop Sub-study. Structural Heart, 2017, 1, 65-74.	0.2	2
96	“Between a rock and the mitral valve space” Transcatheter mitral valve-in-a-valve implantation for paravalvular leak and refractory hemolysis complicated by circumflex coronary occlusion. Catheterization and Cardiovascular Interventions, 2020, 96, 215-218.	0.7	2
97	The association of pre-existing comorbid conditions with COVID-19 severity and post-COVID complications; insights from South Asia. Pakistan Journal of Medical Sciences, 2022, 38, 439-441.	0.3	2
98	Multimodality Imaging of Extensive Caseating Intramyocardial Calcification Secondary to Lymphoma. Circulation: Cardiovascular Imaging, 2015, 8, .	1.3	1
99	State-of-the-Art CT Imaging of the Left Atrium. Current Radiology Reports, 2016, 4, 1.	0.4	1
100	A cost effectiveness study establishing the impact and accuracy of implementing the NICE guidelines lowering plasma NTproBNP threshold in patients with clinically suspected heart failure at our institution. International Journal of Cardiology, 2018, 257, 131-136.	0.8	1
101	Chronic ventricular lead perforation: Expect the unexpected. Clinical Case Reports (discontinued), 2019, 7, 465-468.	0.2	1
102	Segmentation Challenge on the Quantification of Left Atrial Wall Thickness. Lecture Notes in Computer Science, 2017, , 193-200.	1.0	1
103	A rare case of a giant saphenous vein graft aneurysm with right atrial fistula formation. BMJ Case Reports, 2016, 2016, bcr2015213955.	0.2	1
104	Assessment of Thrombotic Risk following Transcatheter Mitral Valve Replacement. , 2021, , .		1
105	Sex Differences in Right Ventricular Systolic Function and All-Cause Mortality in Tricuspid Regurgitation. Cardiology, 2022, 147, 453-460.	0.6	1
106	Anatomy of a Transcatheter Mitral Valve Service. Frontiers in Cardiovascular Medicine, 2022, 9, 862471.	1.1	1
107	Clinical significance and prognostic value of ST segment depression on ECG during exercise treadmill test in asymptomatic patients with moderate or severe aortic stenosis. Scandinavian Cardiovascular Journal, 2022, 56, 231-235.	0.4	1
108	Right ventricular rupture. Clinical Cardiology, 2005, 28, 201-201.	0.7	0

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109	Entrapment: thrombus within a patent foramen ovale. <i>Journal of Cardiovascular Medicine</i> , 2009, 10, 576-577.	0.6	0
110	In people with severe aortic stenosis unsuitable for surgery transcatheter aortic valve implantation reduces 1-year mortality compared with standard care. <i>Evidence-Based Medicine</i> , 2011, 16, 74-75.	0.6	0
111	An unusual cause of intractable cough. <i>European Heart Journal Cardiovascular Imaging</i> , 2012, 13, 848-848.	0.5	0
112	If at first you do not succeed: try another phase! Rescue reconstruction of an anomalous coronary artery in a patient with atrial fibrillation. <i>European Heart Journal Cardiovascular Imaging</i> , 2012, 13, 196-196.	0.5	0
113	An insight into transcatheter aortic valve implantation—a perspective from multidetector computed tomography. <i>Catheterization and Cardiovascular Interventions</i> , 2013, 82, E952-8.	0.7	0
114	Lord of the imaging rings — Takayasu's aortitis. <i>International Journal of Cardiology</i> , 2015, 182, 219-221.	0.8	0
115	The influence of vessel segmentation threshold on the accuracy of patient-specific coronary blood flow simulations. , 2016, , .		0
116	Giant left atrium: Adaptive or maladaptive?. <i>Hellenic Journal of Cardiology</i> , 2019, 60, 400-401.	0.4	0
117	“Thunderball”: Oscillating ball thrombus within a giant sinus of Valsalva aneurysm. <i>Hellenic Journal of Cardiology</i> , 2020, 62, 241-243.	0.4	0
118	Nowhere to Hide. <i>Circulation: Cardiovascular Imaging</i> , 2020, 13, e009643.	1.3	0
119	Unidentified floating object within the right ventricle: Multimodality imaging lights the way. <i>Hellenic Journal of Cardiology</i> , 2022, 64, 106-108.	0.4	0
120	Chimney kissing stenting after transcatheter aortic valve implantation. <i>EuroIntervention</i> , 2022, 18, e351-e352.	1.4	0