

Sayan Sen

List of Publications by Year in descending order

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108
papers

6,522
citations

101535

36
h-index

64791

79
g-index

113
all docs

113
docs citations

113
times ranked

5376
citing authors

#	ARTICLE	IF	CITATIONS
1	Use of the Instantaneous Wave-free Ratio or Fractional Flow Reserve in PCI. <i>New England Journal of Medicine</i> , 2017, 376, 1824-1834.	27.0	742
2	Percutaneous coronary intervention in stable angina (ORBITA): a double-blind, randomised controlled trial. <i>Lancet</i> , 2018, 391, 31-40.	13.7	738
3	Development and Validation of a New Adenosine-Independent Index of Stenosis Severity From Coronary Wave-free Intensity Analysis. <i>Journal of the American College of Cardiology</i> , 2012, 59, 1392-1402.	2.8	579
4	Efficacy of catheter-based renal denervation in the absence of antihypertensive medications (SPYRAL). <i>TJ ETQq0 0 0 rgBT /Overlock 10 Tf</i> 1444-1451.	13.7	351
5	Diagnostic Classification of the Instantaneous Wave-Free Ratio Is Equivalent to Fractional Flow Reserve and Is Not Improved With Adenosine Administration. <i>Journal of the American College of Cardiology</i> , 2013, 61, 1409-1420.	2.8	209
6	Incomplete Stent Apposition Causes High Shear Flow Disturbances and Delay in Neointimal Coverage as a Function of Strut to Wall Detachment Distance. <i>Circulation: Cardiovascular Interventions</i> , 2014, 7, 180-189.	3.9	178
7	Diagnostic Accuracy of Computed Tomography-Derived Fractional Flow Reserve. <i>JAMA Cardiology</i> , 2017, 2, 803.	6.1	166
8	Classification performance of instantaneous wave-free ratio (iFR) and fractional flow reserve in a clinical population of intermediate coronary stenoses: results of the ADVISE registry. <i>EuroIntervention</i> , 2013, 9, 91-101.	3.2	161
9	Baseline Instantaneous Wave-Free Ratio as a Pressure-Only Estimation of Underlying Coronary Flow Reserve. <i>Circulation: Cardiovascular Interventions</i> , 2014, 7, 492-502.	3.9	152
10	The Evolving Future of Instantaneous Wave-Free Ratio and Fractional Flow Reserve. <i>Journal of the American College of Cardiology</i> , 2017, 70, 1379-1402.	2.8	148
11	Fractional Flow Reserve-Guided Revascularization. <i>JACC: Cardiovascular Interventions</i> , 2013, 6, 222-225.	2.9	139
12	Disturbed Coronary Hemodynamics in Vessels With Intermediate Stenoses Evaluated With Fractional Flow Reserve. <i>Circulation</i> , 2013, 128, 2557-2566.	1.6	137
13	Impact of stent strut design in metallic stents and biodegradable scaffolds. <i>International Journal of Cardiology</i> , 2014, 177, 800-808.	1.7	136
14	Coronary pressure and flow relationships in humans: phasic analysis of normal and pathological vessels and the implications for stenosis assessment: a report from the Iberian-Dutch English (IDEAL) collaborators. <i>European Heart Journal</i> , 2015, 37, 2069-2080.	2.2	129
15	Intra-aortic Balloon Pump Therapy for Acute Myocardial Infarction. <i>JAMA Internal Medicine</i> , 2015, 175, 931.	5.1	115
16	Safety of the Deferral of Coronary Revascularization on the Basis of Instantaneous Wave-Free Ratio and Fractional Flow Reserve Measurements in Stable Coronary Artery Disease and Acute Coronary Syndromes. <i>JACC: Cardiovascular Interventions</i> , 2018, 11, 1437-1449.	2.9	111
17	Pre-Angioplasty Instantaneous Wave-Free Ratio Pullback Provides Virtual Intervention and Predicts Hemodynamic Outcome for Serial Lesions and Diffuse Coronary Artery Disease. <i>JACC: Cardiovascular Interventions</i> , 2014, 7, 1386-1396.	2.9	107
18	Fractional Flow Reserve/Instantaneous Wave-Free Ratio Discordance in Angiographically Intermediate Coronary Stenoses. <i>JACC: Cardiovascular Interventions</i> , 2017, 10, 2514-2524.	2.9	104

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19	Effects of Percutaneous Coronary Intervention on Death and Myocardial Infarction Stratified by Stable and Unstable Coronary Artery Disease. <i>Circulation: Cardiovascular Quality and Outcomes</i> , 2020, 13, e006363.	2.2	99
20	Hybrid iFR-FFR decision-making strategy: implications for enhancing universal adoption of physiology-guided coronary revascularisation. <i>EuroIntervention</i> , 2013, 8, 1157-1165.	3.2	99
21	Pre-Angioplasty Instantaneous Wave-Free Ratio Pullback Predicts Hemodynamic Outcome In Humans With Coronary Artery Disease. <i>JACC: Cardiovascular Interventions</i> , 2018, 11, 757-767.	2.9	95
22	Arterial Pulse Wave Dynamics After Percutaneous Aortic Valve Replacement. <i>Circulation</i> , 2011, 124, 1565-1572.	1.6	89
23	Patent foramen ovale closure vs. medical therapy for cryptogenic stroke: a meta-analysis of randomized controlled trials. <i>European Heart Journal</i> , 2018, 39, 1638-1649.	2.2	88
24	Fractional Flow Reserve and Instantaneous Wave-Free Ratio as Predictors of the Placebo-Controlled Response to Percutaneous Coronary Intervention in Stable Single-Vessel Coronary Artery Disease. <i>Circulation</i> , 2018, 138, 1780-1792.	1.6	88
25	Coronary Hemodynamics in Patients With Severe Aortic Stenosis and Coronary Artery Disease Undergoing Transcatheter Aortic Valve Replacement. <i>JACC: Cardiovascular Interventions</i> , 2018, 11, 2019-2031.	2.9	88
26	Maximal expansion capacity with current DES platforms: a critical factor for stent selection in the treatment of left main bifurcations?. <i>EuroIntervention</i> , 2013, 8, 1315-1325.	3.2	83
27	Over-expansion capacity and stent design model: An update with contemporary DES platforms. <i>International Journal of Cardiology</i> , 2016, 221, 171-179.	1.7	71
28	Real-time use of instantaneous wave-free ratio: Results of the ADVISE in-practice: An international, multicenter evaluation of instantaneous wave-free ratio in clinical practice. <i>American Heart Journal</i> , 2014, 168, 739-748.	2.7	67
29	The Instantaneous wave-Free Ratio (iFR) pullback: a novel innovation using baseline physiology to optimise coronary angioplasty in tandem lesions. <i>Cardiovascular Revascularization Medicine</i> , 2015, 16, 167-171.	0.8	64
30	Head-to-head comparison of basal stenosis resistance index, instantaneous wave-free ratio, and fractional flow reserve: diagnostic accuracy for stenosis-specific myocardial ischaemia. <i>EuroIntervention</i> , 2015, 11, 914-925.	3.2	62
31	Hemodynamic Response to Intravenous Adenosine and Its Effect on Fractional Flow Reserve Assessment. <i>Circulation: Cardiovascular Interventions</i> , 2013, 6, 654-661.	3.9	59
32	Physiological Pattern of Disease Assessed by Pressure-Wire Pullback Has an Influence on Fractional Flow Reserve/Instantaneous Wave-Free Ratio Discordance. <i>Circulation: Cardiovascular Interventions</i> , 2019, 12, e007494.	3.9	47
33	Dobutamine Stress Echocardiography Ischemia as a Predictor of the Placebo-Controlled Efficacy of Percutaneous Coronary Intervention in Stable Coronary Artery Disease. <i>Circulation</i> , 2019, 140, 1971-1980.	1.6	46
34	Quantification of the Effect of Pressure Wire Drift on the Diagnostic Performance of Fractional Flow Reserve, Instantaneous Wave-Free Ratio, and Whole-Cycle Pd/Pa. <i>Circulation: Cardiovascular Interventions</i> , 2016, 9, e002988.	3.9	45
35	Change in Coronary Blood Flow After Percutaneous Coronary Intervention in Relation to Baseline Lesion Physiology. <i>Circulation: Cardiovascular Interventions</i> , 2015, 8, e001715.	3.9	38
36	Improvement in Coronary Blood Flow Velocity With Acute Biventricular Pacing Is Predominantly Due to an Increase in a Diastolic Backward-Travelling Decompression (Suction) Wave. <i>Circulation</i> , 2012, 126, 1334-1344.	1.6	37

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37	Assessment, treatment, and prognostic implications of CAD in patients undergoing TAVI. <i>Nature Reviews Cardiology</i> , 2016, 13, 276-285.	13.7	37
38	Clinical Events After Deferral of LAD Revascularization Following Physiological Coronary Assessment. <i>Journal of the American College of Cardiology</i> , 2019, 73, 444-453.	2.8	35
39	Optimal antiplatelet strategy after transcatheter aortic valve implantation: a meta-analysis. <i>Open Heart</i> , 2018, 5, e000748.	2.3	34
40	Low Coronary Microcirculatory Resistance Associated With Profound Hypotension During Intravenous Adenosine Infusion. <i>Circulation: Cardiovascular Interventions</i> , 2014, 7, 35-42.	3.9	33
41	Female-specific survival advantage from transcatheter aortic valve implantation over surgical aortic valve replacement: Meta-analysis of the gender subgroups of randomised controlled trials including 3758 patients. <i>International Journal of Cardiology</i> , 2018, 250, 66-72.	1.7	33
42	Long-Term Effects of Transcatheter Aortic Valve Implantation on Coronary Hemodynamics in Patients With Concomitant Coronary Artery Disease and Severe Aortic Stenosis. <i>Journal of the American Heart Association</i> , 2020, 9, e015133.	3.7	33
43	Complete Revascularization by Percutaneous Coronary Intervention for Patients With ST-Segment Elevation Myocardial Infarction and Multivessel Coronary Artery Disease: An Updated Meta-Analysis of Randomized Trials. <i>Journal of the American Heart Association</i> , 2020, 9, e015263.	3.7	31
44	Safety of Revascularization Deferral of Left Main Stenosis Based on Instantaneous Wave-Free Ratio Evaluation. <i>JACC: Cardiovascular Interventions</i> , 2020, 13, 1655-1664.	2.9	30
45	Advances in Coronary Physiology. <i>Circulation Journal</i> , 2015, 79, 1172-1184.	1.6	27
46	Improvement in coronary haemodynamics after percutaneous coronary intervention: assessment using instantaneous wave-free ratio. <i>Heart</i> , 2013, 99, 1740-1748.	2.9	26
47	Sex Differences in Instantaneous Wave-Free Ratio or Fractional Flow Reserve-Guided Revascularization Strategy. <i>JACC: Cardiovascular Interventions</i> , 2019, 12, 2035-2046.	2.9	26
48	Comparison of Major Adverse Cardiac Events Between Instantaneous Wave-Free Ratio and Fractional Flow Reserve-Guided Strategy in Patients With or Without Type 2 Diabetes. <i>JAMA Cardiology</i> , 2019, 4, 857.	6.1	25
49	A new method of applying randomised control study data to the individual patient: A novel quantitative patient-centred approach to interpreting composite end points. <i>International Journal of Cardiology</i> , 2015, 195, 216-224.	1.7	24
50	Artificial Intelligence for Aortic Pressure Waveform Analysis During Coronary Angiography. <i>JACC: Cardiovascular Interventions</i> , 2019, 12, 2093-2101.	2.9	24
51	Comparison of the self-expanding Evolut-PRO transcatheter aortic valve to its predecessor Evolut-R in the real world multicenter ATLAS registry. <i>International Journal of Cardiology</i> , 2020, 310, 120-125.	1.7	23
52	Instantaneous Wave-Free Ratio. <i>Journal of the American College of Cardiology</i> , 2013, 62, 566.	2.8	21
53	Invasive minimal Microvascular Resistance Is a New Index to Assess Microcirculatory Function Independent of Obstructive Coronary Artery Disease. <i>Journal of the American Heart Association</i> , 2016, 5, .	3.7	21
54	Impact of Percutaneous Revascularization on Exercise Hemodynamics in Patients With Stable Coronary Disease. <i>Journal of the American College of Cardiology</i> , 2018, 72, 970-983.	2.8	21

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55	Myocardial ischemia in aortic stenosis: Insights from arterial pulse-wave dynamics after percutaneous aortic valve replacement. <i>Trends in Cardiovascular Medicine</i> , 2013, 23, 185-191.	4.9	20
56	Determining the Predominant Lesion in Patients With Severe Aortic Stenosis and Coronary Stenoses. <i>Circulation: Cardiovascular Interventions</i> , 2019, 12, e008263.	3.9	20
57	Wave Intensity Analysis in the Human Coronary Circulation in Health and Disease. <i>Current Cardiology Reviews</i> , 2014, 10, 17-23.	1.5	18
58	Why Does Primary Angioplasty Not Work in Registries? Quantifying the Susceptibility of Real-World Comparative Effectiveness Data to Allocation Bias. <i>Circulation: Cardiovascular Quality and Outcomes</i> , 2012, 5, 759-766.	2.2	17
59	Prevalence, predictors, and outcomes of patient prosthesis mismatch in women undergoing <scp>TAVI</scp> for severe aortic stenosis: Insights from the <scp>WINâ€TAVI</scp> registry. <i>Catheterization and Cardiovascular Interventions</i> , 2021, 97, 516-526.	1.7	17
60	Fractional flow reserve and minimum Pd/Pa ratio during intravenous adenosine infusion: very similar but not always the same. <i>EuroIntervention</i> , 2016, 11, 1013-1019.	3.2	17
61	ECG-Independent Calculation of Instantaneous Wave-Free Ratio. <i>JACC: Cardiovascular Interventions</i> , 2015, 8, 2043-2046.	2.9	16
62	The ischaemic constellation: an alternative to the ischaemic cascadeâ€implications for the validation of new ischaemic tests. <i>Open Heart</i> , 2015, 2, e000178.	2.3	15
63	Performance of quantitative flow ratio in patients with aortic stenosis undergoing transcatheter aortic valve implantation. <i>Catheterization and Cardiovascular Interventions</i> , 2022, 99, 68-73.	1.7	15
64	Estimation of coronary wave intensity analysis using noninvasive techniques and its application to exercise physiology. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2016, 310, H619-H627.	3.2	13
65	Initial experience of a large, selfâ€expanding, and fully recapturable transcatheter aortic valve: The UK & Ireland Implantersâ€ registry. <i>Catheterization and Cardiovascular Interventions</i> , 2019, 93, 751-757.	1.7	13
66	Resolving the paradox of randomised controlled trials and observational studies comparing multi-vessel angioplasty and culprit only angioplasty at the time of STEMI. <i>International Journal of Cardiology</i> , 2016, 222, 1-8.	1.7	12
67	Bioresorbable vascular scaffold radial expansion and conformation compared to a metallic platform: insights from in vitro expansion in a coronary artery lesion model. <i>EuroIntervention</i> , 2016, 12, 834-844.	3.2	12
68	Cardiopulmonary exercise testing and efficacy of percutaneous coronary intervention: a substudy of the ORBITA trial. <i>European Heart Journal</i> , 2022, 43, 3132-3145.	2.2	12
69	Achieving Optimal Medical Therapy: Insights From the ORBITA Trial. <i>Journal of the American Heart Association</i> , 2021, 10, e017381.	3.7	11
70	Optimal management of acute coronary syndromes in the era of COVID-19. <i>Heart</i> , 2020, 106, 1609-1616.	2.9	10
71	Impact of clinical and procedural factors upon C reactive protein dynamics following transcatheter aortic valve implantation. <i>World Journal of Cardiology</i> , 2016, 8, 425.	1.5	9
72	Survival outcomes post percutaneous coronary intervention: Why the hype about stent type? Lessons from a healthcare system in India. <i>PLoS ONE</i> , 2018, 13, e0196830.	2.5	8

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73	Fractional flow reserve derived from microcatheters versus standard pressure wires: a stenosis-level meta-analysis. <i>Open Heart</i> , 2019, 6, e000971.	2.3	8
74	A double-blind randomised placebo-controlled trial of percutaneous coronary intervention for the relief of stable angina without antianginal medications: design and rationale of the ORBITA-2 trial. <i>EuroIntervention</i> , 2022, 17, 1490-1497.	3.2	7
75	Regression of left ventricular hypertrophy provides an additive physiological benefit following treatment of aortic stenosis: Insights from serial coronary wave intensity analysis. <i>Acta Physiologica</i> , 2018, 224, e13109.	3.8	6
76	Placebo-Controlled Efficacy of Percutaneous Coronary Intervention for Focal and Diffuse Patterns of Stable Coronary Artery Disease. <i>Circulation: Cardiovascular Interventions</i> , 2021, 14, e009891.	3.9	6
77	Objective Identification of Intermediate Lesions Inducing Myocardial Ischemia Using Sequential Intracoronary Pressure and Flow Measurements. <i>Journal of the American Heart Association</i> , 2020, 9, e015559.	3.7	5
78	Demystifying Complex Coronary Hemodynamics in Patients Undergoing Transcatheter Aortic Valve Replacement. <i>Circulation: Cardiovascular Interventions</i> , 2015, 8, e002909.	3.9	4
79	Management of failing bioprosthesis in elderly patients who have undergone transcatheter aortic valve replacement. <i>Expert Review of Medical Devices</i> , 2017, 14, 763-771.	2.8	4
80	How high can "accuracy" be for iFR (or IVUS, or SPECT, or OCT...) if using fractional flow reserve as the gold standard?. <i>EuroIntervention</i> , 2013, 9, 770-2.	3.2	4
81	Association Between Physiological Stenosis Severity and Angina-Limited Exercise Time in Patients With Stable Coronary Artery Disease. <i>JAMA Cardiology</i> , 2019, 4, 569.	6.1	3
82	Double Utility of a Buddy Wire in Transseptal Transcatheter Mitral Intervention. <i>JACC: Cardiovascular Interventions</i> , 2019, 12, 2555-2557.	2.9	3
83	Achieving optimal adherence to medical therapy by telehealth: Findings from the ORBITA medication adherence sub-study. <i>Pharmacology Research and Perspectives</i> , 2021, 9, e00710.	2.4	3
84	Reusable snorkel masks adapted as particulate respirators. <i>PLoS ONE</i> , 2021, 16, e0249201.	2.5	3
85	Assessing coronary disease in patients with severe aortic stenosis: the need for a "valid" gold standard for validation studies?. <i>EuroIntervention</i> , 2018, 13, 1499-1502.	3.2	3
86	Aortic Valve Calcium Score Is Associated With Acute Stroke in Transcatheter Aortic Valve Replacement Patients. , 2022, 1, 100349.		3
87	Letter by Sen et al Regarding Article, "Diagnostic Accuracy of Combined Intracoronary Pressure and Flow Velocity Information During Baseline Conditions: Adenosine-Free Assessment of Functional Coronary Lesion Severity"; <i>Circulation: Cardiovascular Interventions</i> , 2012, 5, e85; author reply e86-7.	3.9	2
88	Reply. <i>JACC: Cardiovascular Interventions</i> , 2014, 7, 228-229.	2.9	2
89	A case report of the clinical effect of chronic total occlusion recanalization on the instantaneous wave-free ratio in the donor artery. <i>European Heart Journal - Case Reports</i> , 2018, 2, 1-4.	0.6	2
90	Diastolic-systolic velocity ratio to detect coronary stenoses under physiological resting conditions: a mechanistic study. <i>Open Heart</i> , 2019, 6, e000968.	2.3	2

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91	Facilitating right-sided axillary artery access for transcatheter aortic valve replacement using the Edwards Sapien 3 and ultra valves: Technical considerations. <i>Catheterization and Cardiovascular Interventions</i> , 2020, 96, E747-E754.	1.7	2
92	Reply. <i>Journal of the American College of Cardiology</i> , 2013, 62, 943-945.	2.8	1
93	TCT-634 Diagnostic accuracy of basal stenosis resistance index (BSR) is higher than that of instantaneous wave-free ratio (iFR): validation of basal stenosis resistance index in an independent cohort of simultaneous pressure and flow measurements. <i>Journal of the American College of Cardiology</i> , 2013, 62, B193.	2.8	1
94	Can anatomy be used as a surrogate for physiology? The IVUS conundrum. <i>International Journal of Cardiology</i> , 2013, 168, 631-632.	1.7	1
95	Can Resting Indices Obviate the Need for Hyperemia and Promote the Routine Use of Physiologically Guided Revascularization?. <i>Interventional Cardiology Clinics</i> , 2015, 4, 459-469.	0.4	1
96	Transcatheter aortic valve implantation in the young. <i>International Journal of Cardiology</i> , 2016, 203, 626-628.	1.7	1
97	Effects of disease severity distribution on the performance of quantitative diagnostic methods and proposal of a novel \hat{V} -plot™ methodology to display accuracy values. <i>Open Heart</i> , 2018, 5, e000663.	2.3	1
98	Reply to: Assessing the quality of evidence supporting patent foramen ovale closure over medical therapy after cryptogenic stroke. <i>European Heart Journal</i> , 2018, 39, 3620-3620.	2.2	1
99	Rescue Valve-in-Valve-in-Valve TAVR for Acute Transvalvular Aortic Regurgitation. <i>Cardiovascular Revascularization Medicine</i> , 2020, 21, 11-13.	0.8	1
100	How Do Fractional Flow Reserve, Whole-Cycle PdPa, and Instantaneous Wave-Free Ratio Correlate With Exercise Coronary Flow Velocity During Exercise-Induced Angina?. <i>Circulation: Cardiovascular Interventions</i> , 2020, 13, e008460.	3.9	1
101	Balloon-Assisted Tracking (BAT) of an Uncrossable Aortic Valve During Transcatheter Aortic Valve Implantation. <i>Cardiovascular Revascularization Medicine</i> , 2020, 21, 33-35.	0.8	1
102	Comparing invasive hemodynamic responses in adenosine hyperemia versus physical exercise stress in chronic coronary syndromes. <i>International Journal of Cardiology</i> , 2021, 342, 7-14.	1.7	1
103	Baseline coronary pressures, instant wave-free ratio (iFR) and Pd/Pa: making the most of available information. <i>EuroIntervention</i> , 2013, 9, 170-23.	3.2	1
104	Phasic flow patterns of right versus left coronary arteries in patients undergoing clinical physiological assessment. <i>EuroIntervention</i> , 2022, 17, 1260-1270.	3.2	1
105	Tackling the bends in transcatheter aortic valve implantation. <i>International Journal of Cardiology</i> , 2015, 201, 55-57.	1.7	0
106	Successful percutaneous retrieval of a severely kinked and twisted femoral sheath under fluoroscopic guidance during Transcatheter Aortic Valve Implantation. <i>Cardiovascular Revascularization Medicine</i> , 2018, 19, 86-87.	0.8	0
107	Transcatheter mitral valve replacement in severe mitral annular calcification and atrial septal defect closure. <i>Cardiovascular Revascularization Medicine</i> , 2019, 20, 194-196.	0.8	0
108	Simplifying Angioplasty: From Three-Vessel to One-Vessel Disease. , 2016, , 71-76.		0