Sayan Sen

List of Publications by Year
in descending order

108 papers	6,522 citations	101543 36 h-index	64796 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. New England Journal of Medicine, 2017, 376, 1824-1834.	27.0	742
2	Percutaneous coronary intervention in stable angina (ORBITA): a double-blind, randomised controlled trial. Lancet, The, 2018, 391, 31-40.	13.7	738
3	Development and Validation of a New Adenosine-Independent Index of Stenosis Severity From Coronary Waveâ€"Intensity Analysis. Journal of the American College of Cardiology, 2012, 59, 1392-1402.	2.8	579
4	Efficacy of catheter-based renal denervation in the absence of antihypertensive medications (SPYRAL) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 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. Journal of the American College of Cardiology, 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. Circulation: Cardiovascular Interventions, 2014, 7, 180-189.	3.9	178
7	Diagnostic Accuracy of Computed Tomographyâ€"Derived Fractional Flow Reserve. JAMA Cardiology, 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. EuroIntervention, 2013, 9, 91-101.	3.2	161
9	Baseline Instantaneous Wave-Free Ratio as a Pressure-Only Estimation of Underlying Coronary Flow Reserve. Circulation: Cardiovascular Interventions, 2014, 7, 492-502.	3.9	152
10	The Evolving Future of InstantaneousÂWave-Free Ratio and Fractional FlowÂReserve. Journal of the American College of Cardiology, 2017, 70, 1379-1402.	2.8	148
11	Fractional Flow Reserveâ€"Guided Revascularization. JACC: Cardiovascular Interventions, 2013, 6, 222-225.	2.9	139
12	Disturbed Coronary Hemodynamics in Vessels With Intermediate Stenoses Evaluated With Fractional Flow Reserve. Circulation, 2013, 128, 2557-2566.	1.6	137
13	Impact of stent strut design in metallic stents and biodegradable scaffolds. International Journal of Cardiology, 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 Iberianâ€"Dutchâ€"English (IDEAL) collaborators. European Heart Journal, 2015, 37, 2069-2080.	2.2	129
15	Intra-aortic Balloon Pump Therapy for Acute Myocardial Infarction. JAMA Internal Medicine, 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. JACC: Cardiovascular Interventions, 2018, 11, 1437-1449.	2.9	111
17	Pre-Angioplasty Instantaneous Wave-Free Ratio Pullback Provides Virtual Intervention and Predicts Hemodynamic Outcome for SerialÂLesions and Diffuse Coronary ArteryÂDisease. JACC: Cardiovascular Interventions, 2014, 7, 1386-1396.	2.9	107
18	Fractional Flow Reserve/InstantaneousÂWave-Free Ratio Discordance in Angiographically Intermediate CoronaryÂStenoses. JACC: Cardiovascular Interventions, 2017, 10, 2514-2524.	2.9	104

#	Article	IF	Citations
19	Effects of Percutaneous Coronary Intervention on Death and Myocardial Infarction Stratified by Stable and Unstable Coronary Artery Disease. Circulation: Cardiovascular Quality and Outcomes, 2020, 13, e006363.	2.2	99
20	Hybrid iFR-FFR decision-making strategy: implications for enhancing universal adoption of physiology-guided coronary revascularisation. EuroIntervention, 2013, 8, 1157-1165.	3.2	99
21	Pre-Angioplasty Instantaneous Wave-Free Ratio Pullback Predicts Hemodynamic Outcome In Humans WithÂCoronary Artery Disease. JACC: Cardiovascular Interventions, 2018, 11, 757-767.	2.9	95
22	Arterial Pulse Wave Dynamics After Percutaneous Aortic Valve Replacement. Circulation, 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. European Heart Journal, 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. Circulation, 2018, 138, 1780-1792.	1.6	88
25	Coronary Hemodynamics in Patients WithÂSevere Aortic Stenosis and Coronary Artery Disease Undergoing Transcatheter Aortic Valve Replacement. JACC: Cardiovascular Interventions, 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?. EuroIntervention, 2013, 8, 1315-1325.	3.2	83
27	Over-expansion capacity and stent design model: An update with contemporary DES platforms. International Journal of Cardiology, 2016, 221, 171-179.	1.7	71
28	Real-time use of instantaneous waveâ€“free ratio: Results of the ADVISE in-practice: An international, multicenter evaluation of instantaneous waveâ€“free ratio in clinical practice. American Heart Journal, 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. Cardiovascular Revascularization Medicine, 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. EuroIntervention, 2015, 11, 914-925.	3.2	62
31	Hemodynamic Response to Intravenous Adenosine and Its Effect on Fractional Flow Reserve Assessment. Circulation: Cardiovascular Interventions, 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. Circulation: Cardiovascular Interventions, 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. Circulation, 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. Circulation: Cardiovascular Interventions, 2016, 9, e002988.	3.9	45
35	Change in Coronary Blood Flow After Percutaneous Coronary Intervention in Relation to Baseline Lesion Physiology. Circulation: Cardiovascular Interventions, 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. Circulation, 2012, 126, 1334-1344.	1.6	37

#	Article	IF	Citations
37	Assessment, treatment, and prognostic implications of CAD in patients undergoing TAVI. Nature Reviews Cardiology, 2016, 13, 276-285.	13.7	37
38	Clinical Events After Deferral of LADÂRevascularization Following PhysiologicalÂCoronaryÂAssessment. Journal of the American College of Cardiology, 2019, 73, 444-453.	2.8	35
39	Optimal antiplatelet strategy after transcatheter aortic valve implantation: a meta-analysis. Open Heart, 2018, 5, e000748.	2.3	34
40	Low Coronary Microcirculatory Resistance Associated With Profound Hypotension During Intravenous Adenosine Infusion. Circulation: Cardiovascular Interventions, 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. International Journal of Cardiology, 2018, 250, 66-72.	1.7	33
42	Longâ€Term Effects of Transcatheter Aortic Valve Implantation on Coronary Hemodynamics in Patients With Concomitant Coronary Artery Disease and Severe Aortic Stenosis. Journal of the American Heart Association, 2020, 9, e015133.	3.7	33
43	Complete Revascularization by Percutaneous Coronary Intervention for Patients With STâ€Segmentâ€"Elevation Myocardial Infarction and Multivessel Coronary Artery Disease: An Updated Metaâ€Analysis of Randomized Trials. Journal of the American Heart Association, 2020, 9, e015263.	3.7	31
44	Safety of Revascularization Deferral of Left Main Stenosis Based on Instantaneous Wave-FreeÂRatio Evaluation. JACC: Cardiovascular Interventions, 2020, 13, 1655-1664.	2.9	30
45	Advances in Coronary Physiology. Circulation Journal, 2015, 79, 1172-1184.	1.6	27
46	Improvement in coronary haemodynamics after percutaneous coronary intervention: assessment using instantaneous wave-free ratio. Heart, 2013, 99, 1740-1748.	2.9	26
47	Sex Differences in Instantaneous Wave-Free Ratio or Fractional Flow Reserveâ€"Guided Revascularization Strategy. JACC: Cardiovascular Interventions, 2019, 12, 2035-2046.	2.9	26
48	Comparison of Major Adverse Cardiac Events Between Instantaneous Wave-Free Ratio and Fractional Flow Reserveâ€"Guided Strategy in Patients With or Without Type 2 Diabetes. JAMA Cardiology, 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. International Journal of Cardiology, 2015, 195, 216-224.	1.7	24
50	Artificial Intelligence for Aortic Pressure Waveform Analysis During CoronaryÂAngiography. JACC: Cardiovascular Interventions, 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. International Journal of Cardiology, 2020, 310, 120-125.	1.7	23
52	Instantaneous Wave-Free Ratio. Journal of the American College of Cardiology, 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. Journal of the American Heart Association, 2016, 5, .	3.7	21
54	Impact of Percutaneous Revascularization on ExerciseÂHemodynamics in PatientsÂWithÂStable Coronary Disease. Journal of the American College of Cardiology, 2018, 72, 970-983.	2.8	21

#	Article	IF	Citations
55	Myocardial ischemia in aortic stenosis: Insights from arterial pulse-wave dynamics after percutaneous aortic valve replacement. Trends in Cardiovascular Medicine, 2013, 23, 185-191.	4.9	20
56	Determining the Predominant Lesion in Patients With Severe Aortic Stenosis and Coronary Stenoses. Circulation: Cardiovascular Interventions, 2019, 12, e008263.	3.9	20
57	Wave Intensity Analysis in the Human Coronary Circulation in Health and Disease. Current Cardiology Reviews, 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. Circulation: Cardiovascular Quality and Outcomes, 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. Catheterization and Cardiovascular Interventions, 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. EuroIntervention, 2016, 11, 1013-1019.	3.2	17
61	ECG-Independent Calculation of Instantaneous Wave-Free Ratio. JACC: Cardiovascular Interventions, 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. Open Heart, 2015, 2, e000178.	2.3	15
63	Performance of quantitative flow ratio in patients with aortic stenosis undergoing transcatheter aortic valve implantation. Catheterization and Cardiovascular Interventions, 2022, 99, 68-73.	1.7	15
64	Estimation of coronary wave intensity analysis using noninvasive techniques and its application to exercise physiology. American Journal of Physiology - Heart and Circulatory Physiology, 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. Catheterization and Cardiovascular Interventions, 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. International Journal of Cardiology, 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. EuroIntervention, 2016, 12, 834-844.	3.2	12
68	Cardiopulmonary exercise testing and efficacy of percutaneous coronary intervention: a substudy of the ORBITA trial. European Heart Journal, 2022, 43, 3132-3145.	2.2	12
69	Achieving Optimal Medical Therapy: Insights From the ORBITA Trial. Journal of the American Heart Association, 2021, 10, e017381.	3.7	11
70	Optimal management of acute coronary syndromes in the era of COVID-19. Heart, 2020, 106, 1609-1616.	2.9	10
71	Impact of clinical and procedural factors upon C reactive protein dynamics following transcatheter aortic valve implantation. World Journal of Cardiology, 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. PLoS ONE, 2018, 13, e0196830.	2.5	8

#	Article	IF	Citations
73	Fractional flow reserve derived from microcatheters versus standard pressure wires: a stenosis-level meta-analysis. Open Heart, 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. EuroIntervention, 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. Acta Physiologica, 2018, 224, e13109.	3.8	6
76	Placebo-Controlled Efficacy of Percutaneous Coronary Intervention for Focal and Diffuse Patterns of Stable Coronary Artery Disease. Circulation: Cardiovascular Interventions, 2021, 14, e009891.	3.9	6
77	Objective Identification of Intermediate Lesions Inducing Myocardial Ischemia Using Sequential Intracoronary Pressure and Flow Measurements. Journal of the American Heart Association, 2020, 9, e015559.	3.7	5
78	Demystifying Complex Coronary Hemodynamics in Patients Undergoing Transcatheter Aortic Valve Replacement. Circulation: Cardiovascular Interventions, 2015, 8, e002909.	3.9	4
79	Management of failing bioprosthesis in elderly patients who have undergone transcatheter aortic valve replacement. Expert Review of Medical Devices, 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?. EuroIntervention, 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. JAMA Cardiology, 2019, 4, 569.	6.1	3
82	Double Utility of a Buddy Wire inÂTransseptal Transcatheter MitralÂIntervention. JACC: Cardiovascular Interventions, 2019, 12, 2555-2557.	2.9	3
83	Achieving optimal adherence to medical therapy by telehealth: Findings from the ORBITA medication adherence subâ€study. Pharmacology Research and Perspectives, 2021, 9, e00710.	2.4	3
84	Reusable snorkel masks adapted as particulate respirators. PLoS ONE, 2021, 16, e0249201.	2.5	3
85	Assessing coronary disease in patients with severe aortic stenosis: the need for a â€˜validâ€™ gold standard for validation studies?. EuroIntervention, 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, â€œDiagnostic Accuracy of Combined Intracoronary Pressure and Flow Velocity Information During Baseline Conditions: Adenosine-Free Assessment of Functional Coronary Lesion Severityâ€. Circulation: Cardiovascular Interventions, 2012, 5, e85; author reply e86-7.	3.9	2
88	Reply. JACC: Cardiovascular Interventions, 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. European Heart Journal - Case Reports, 2018, 2, 1-4.	0.6	2
90	Diastolic-systolic velocity ratio to detect coronary stenoses under physiological resting conditions: a mechanistic study. Open Heart, 2019, 6, e000968.	2.3	2

#	Article	IF	Citations
91	Facilitating rightâ€sided axillary artery access for transcatheter aortic valve replacement using the Edwards Sapien 3 and ultra valves: Technical considerations. Catheterization and Cardiovascular Interventions, 2020, 96, E747-E754.	1.7	2
92	Reply. Journal of the American College of Cardiology, 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. Journal of the American College of Cardiology, 2013, 62, B193.	2.8	1
94	Can anatomy be used as a surrogate for physiology? The IVUS conundrum. International Journal of Cardiology, 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?. Interventional Cardiology Clinics, 2015, 4, 459-469.	0.4	1
96	Transcatheter aortic valve implantation in the young. International Journal of Cardiology, 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 â€˜V-plotâ€™ methodology to display accuracy values. Open Heart, 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. European Heart Journal, 2018, 39, 3620-3620.	2.2	1
99	Rescue Valve-in-Valve-in-Valve TAVR for Acute Transvalvular Aortic Regurgitation. Cardiovascular Revascularization Medicine, 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?. Circulation: Cardiovascular Interventions, 2020, 13, e008460.	3.9	1
101	Balloon-Assisted Tracking (BAT) of an Uncrossable Aortic Valve During Transcatheter Aortic Valve Implantation. Cardiovascular Revascularization Medicine, 2020, 21, 33-35.	0.8	1
102	Comparing invasive hemodynamic responses in adenosine hyperemia versus physical exercise stress in chronic coronary syndromes. International Journal of Cardiology, 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. EuroIntervention, 2013, 9, 170-23.	3.2	1
104	Phasic flow patterns of right versus left coronary arteries in patients undergoing clinical physiological assessment. EuroIntervention, 2022, 17, 1260-1270.	3.2	1
105	Tackling the bends in transcatheter aortic valve implantation. International Journal of Cardiology, 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. Cardiovascular Revascularization Medicine, 2018, 19, 86-87.	0.8	0
107	Transcatheter mitral valve replacement in severe mitral annular calcification and atrial septal defect closure. Cardiovascular Revascularization Medicine, 2019, 20, 194-196.	0.8	0
108	Simplifying Angioplasty: From Three-Vessel to One-Vessel Disease. , 2016, , 71-76.		0