

# Simon SÃ¼ndermann

## List of Publications by Year in descending order

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Version: 2024-02-01

106  
papers

1,875  
citations

430874

18  
h-index

302126

39  
g-index

122  
all docs

122  
docs citations

122  
times ranked

2698  
citing authors

#	ARTICLE	IF	CITATIONS
1	Experience with a standardized protocol to predict successful explantation of left ventricular assist devices. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2022, 164, 1922-1930.e2.	0.8	15
2	Aortic valve replacement via right anterolateral minithoracotomy: preventing adverse events during the initial learning curve. <i>Journal of Cardiovascular Surgery</i> , 2022, 63, .	0.6	0
3	Minimally invasive endoscopic mitral valve repair—the new gold standard for degenerative mitral valve disease. <i>European Journal of Cardio-thoracic Surgery</i> , 2022, 61, 645-646.	1.4	3
4	Comparison of feasibility and results of frailty assessment methods prior to left ventricular assist device implantation. <i>ESC Heart Failure</i> , 2022, 9, 1038-1049.	3.1	10
5	Cascaded neural network-based CT image processing for aortic root analysis. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2022, 17, 507-519.	2.8	6
6	Endoaortic Balloon Occlusion During Minimally Invasive Mitral Valve Surgery. <i>Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery</i> , 2022, , 155698452210830.	0.9	3
7	Transcatheter mitral valve implantation in the ongoing structural heart revolution. <i>Journal of Cardiac Surgery</i> , 2022, , .	0.7	1
8	Partial ring annuloplasty in the management of mitral annular calcification. <i>Journal of Cardiac Surgery</i> , 2022, , .	0.7	0
9	Using Position-Based Dynamics for Simulating Mitral Valve Closure and Repair Procedures. <i>Computer Graphics Forum</i> , 2022, 41, 270-287.	3.0	5
10	Endoaortic balloon occlusion in minimally invasive mitral valve surgery. , 2022, 2022, .		5
11	Minimally invasive mitral valve surgery after failed transcatheter mitral valve repair in an intermediate-risk cohort. <i>Interactive Cardiovascular and Thoracic Surgery</i> , 2022, 35, .	1.1	3
12	The arch remodelling stent for DeBakey I acute aortic dissection: experience with 100 implantations. <i>European Journal of Cardio-thoracic Surgery</i> , 2022, 62, .	1.4	10
13	A new calcium score to predict paravalvular leak in transcatheter aortic valve implantation. <i>European Journal of Cardio-thoracic Surgery</i> , 2021, 59, 894-900.	1.4	3
14	Interactive editing of virtual chordae tendineae for the simulation of the mitral valve in a decision support system. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2021, 16, 125-132.	2.8	9
15	Minithoracotomy versus full sternotomy for isolated aortic valve replacement: Propensity matched data from two centers. <i>Journal of Cardiac Surgery</i> , 2021, 36, 97-104.	0.7	11
16	A Novel Hybrid Membrane VAD as First Step Toward Hemocompatible Blood Propulsion. <i>Annals of Biomedical Engineering</i> , 2021, 49, 716-731.	2.5	9
17	Real-time intraoperative co-registration of transesophageal echocardiography with fluoroscopy facilitates transcatheter mitral valve-in-valve implantation in cases of invisible degenerated bioprosthetic valves. <i>Interactive Cardiovascular and Thoracic Surgery</i> , 2021, 32, 695-702.	1.1	1
18	Mitral valve surgery: current status and future prospects of the minimally invasive approach. <i>Expert Review of Medical Devices</i> , 2021, 18, 245-260.	2.8	15

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19	Propensity matched long-term analysis of mechanical versus stentless aortic valve replacement in the younger patient. <i>European Journal of Cardio-thoracic Surgery</i> , 2021, 60, 276-283.	1.4	7
20	SLL-PEEP Ventilation to Improve Exposure in Minimally Invasive Right Anterolateral Minithoracotomy Aortic Valve Replacement. <i>Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery</i> , 2021, 16, 358-364.	0.9	0
21	Real-Time Ventricular Volume Measured Using the Intracardiac Electromyogram. <i>ASAIO Journal</i> , 2021, 67, 1312-1320.	1.6	3
22	Minimally invasive surgery versus sternotomy in native mitral valve endocarditis: a matched comparison. <i>European Journal of Cardio-thoracic Surgery</i> , 2021, 61, 189-194.	1.4	2
23	The Pandora's Box of Frailty Assessments: Which Is the Best for Clinical Purposes in TAVI Patients? A Critical Review. <i>Journal of Clinical Medicine</i> , 2021, 10, 4506.	2.4	5
24	Computed Tomography-Based Assessment of Transvalvular Pressure Gradient in Aortic Stenosis. <i>Frontiers in Cardiovascular Medicine</i> , 2021, 8, 706628.	2.4	7
25	Reply to Jasinski et al.. <i>European Journal of Cardio-thoracic Surgery</i> , 2021, , .	1.4	0
26	State of the Art Review: Surgical Treatment of Acute Type A Aortic Dissection. <i>Surgical Technology International</i> , 2021, 38, 279-288.	0.2	1
27	Combining position-based dynamics and gradient vector flow for 4D mitral valve segmentation in TEE sequences. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2020, 15, 119-128.	2.8	6
28	Transcatheter aortic valve implantation and its impact on mitral valve geometry and function. <i>Journal of Cardiac Surgery</i> , 2020, 35, 2185-2193.	0.7	2
29	Minimally invasive surgical aortic valve replacement: The RALT approach. <i>Journal of Cardiac Surgery</i> , 2020, 35, 2341-2346.	0.7	23
30	Surgical explantation of a partially detached cardioband device. <i>Journal of Cardiac Surgery</i> , 2020, 35, 2100-2102.	0.7	4
31	Safety of bioelectrical impedance analysis in advanced heart failure patients. <i>PACE - Pacing and Clinical Electrophysiology</i> , 2020, 43, 1078-1085.	1.2	7
32	Body donation as a grateful gift for a long and active life with a Björk-Shiley valve. <i>Journal of Cardiac Surgery</i> , 2020, 35, 2811-2813.	0.7	0
33	Continuous Heart Volume Monitoring by Fully Implantable Soft Strain Sensor. <i>Advanced Healthcare Materials</i> , 2020, 9, e2000855.	7.6	27
34	Reliability and Influence on Decision Making of fully-automated vs. semi-automated Software Packages for Procedural Planning in TAVI. <i>Scientific Reports</i> , 2020, 10, 10746.	3.3	10
35	Control of ventricular unloading using an electrocardiogram-synchronized pulsatile ventricular assist device under high stroke ratios. <i>Artificial Organs</i> , 2020, 44, E394-E405.	1.9	4
36	Hemodynamic Modeling of Biological Aortic Valve Replacement Using Preoperative Data Only. <i>Frontiers in Cardiovascular Medicine</i> , 2020, 7, 593709.	2.4	6

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37	DL-based segmentation of endoscopic scenes for mitral valve repair. <i>Current Directions in Biomedical Engineering</i> , 2020, 6, .	0.4	1
38	Intraventricular flow features and cardiac mechano-energetics after mitral valve interventions – feasibility of an isolated heart model. <i>Current Directions in Biomedical Engineering</i> , 2020, 6, .	0.4	0
39	New Hybrid Prosthesis for Acute Type A Aortic Dissection. <i>Surgical Technology International</i> , 2020, 36, 95-97.	0.2	9
40	User-dependent variability in mitral valve segmentation and its impact on CFD-computed hemodynamic parameters. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2019, 14, 1687-1696.	2.8	9
41	Minimally invasive approach for infective mitral valve endocarditis. <i>Annals of Cardiothoracic Surgery</i> , 2019, 8, 702-704.	1.7	10
42	Virtual downsizing for decision support in mitral valve repair. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2019, 14, 357-371.	2.8	7
43	The Hybrid Cardiac Surgeon: Way to go or waste of time?. <i>Turkish Journal of Thoracic and Cardiovascular Surgery</i> , 2019, 27, 427-428.	0.4	0
44	Minimally invasive approach for infective mitral valve endocarditis. <i>Asvide</i> , 2019, 6, 338-338.	0.0	0
45	ConVes: The Sutureless Aortic Graft Anastomotic Device. <i>Annals of Thoracic Surgery</i> , 2018, 105, 1558-1562.	1.3	1
46	An overview of surgical treatment modalities and emerging transcatheter interventions in the management of tricuspid valve regurgitation. <i>Expert Review of Cardiovascular Therapy</i> , 2018, 16, 75-89.	1.5	18
47	Sternal Anomalies in Asymptomatic Patients after Median Sternotomy and Potential Influencing Factors. <i>Thoracic and Cardiovascular Surgeon</i> , 2018, 66, 517-522.	1.0	2
48	Impact of patient-specific LVOT inflow profiles on aortic valve prosthesis and ascending aorta hemodynamics. <i>Journal of Computational Science</i> , 2018, 24, 91-100.	2.9	14
49	Minimally Invasive Cardiac Surgery. <i>Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery</i> , 2018, 13, 230-232.	0.9	0
50	Minimally Invasive Cardiac Surgery. <i>Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery</i> , 2018, 13, 230-232.	0.9	7
51	Machine learning for real-time prediction of complications in critical care: a retrospective study. <i>Lancet Respiratory Medicine</i> , 2018, 6, 905-914.	10.7	226
52	Extraction of open-state mitral valve geometry from CT volumes. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2018, 13, 1741-1754.	2.8	17
53	Development of a modeling pipeline for the prediction of hemodynamic outcome after virtual mitral valve repair using image-based CFD. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2018, 13, 1795-1805.	2.8	18
54	Postoperative analysis of the mechanical interaction between stent and host tissue in patients after transcatheter aortic valve implantation. <i>Journal of Biomechanics</i> , 2017, 53, 15-21.	2.1	16

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55	Results of mitral valve repair with an adjustable annuloplasty ring 2Âyears after implantation. Heart and Vessels, 2017, 32, 843-849.	1.2	4
56	Finite Element Stent Modeling for the Postoperative Analysis of Transcatheter Aortic Valve Implantation. Journal of Medical Devices, Transactions of the ASME, 2017, 11, .	0.7	6
57	Turbulent Kinetic Energy Assessed by Multipoint 4-Dimensional Flow Magnetic Resonance Imaging Provides Additional Information Relative to Echocardiography for the Determination of Aortic Stenosis Severity. Circulation: Cardiovascular Imaging, 2017, 10, .	2.6	60
58	Beating heart mitral valve surgery: results in 120 consecutive patients considered unsuitable for conventional mitral valve surgeryâ€. Interactive Cardiovascular and Thoracic Surgery, 2017, 25, 541-547.	1.1	10
59	Comparison of 1-Year Survival and Frequency of Paravalvular Leakage Using the Sapien 3 Versus the Sapien XT for Transcatheter Aortic Valve Implantation for Aortic Stenosis. American Journal of Cardiology, 2017, 120, 2247-2255.	1.6	15
60	Model-Based Therapy Planning Allows Prediction of Haemodynamic Outcome after Aortic Valve Replacement. Scientific Reports, 2017, 7, 9897.	3.3	14
61	Minimally Invasive Surgical Mitral Valve Repair: State of the Art Review. Interventional Cardiology Review, 2017, 13, 14.	1.6	56
62	Frailty Assessed by the Forecast is a Valid Tool to Predict Short-Term Outcome after Transcatheter Aortic Valve Replacement. Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery, 2016, 11, 407-413.	0.9	5
63	Frailty Assessed by the Forecast is a Valid Tool to Predict Short-Term Outcome after Transcatheter Aortic Valve Replacement. Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery, 2016, 11, 407-413.	0.9	14
64	Two- and three-dimensional transoesophageal echocardiography in large swine used as model for transcatheter heart valve therapies: standard planes and values. Interactive Cardiovascular and Thoracic Surgery, 2016, 22, 580-586.	1.1	11
65	Wire skills for the surgeon â€“ Femoral access safety net and vascular closure devices in transfemoral transcatheter aortic valve implantation procedures. , 2016, 2016, .		2
66	Simulated Prosthesis Overlay for Patient-Specific Planning of Transcatheter Aortic Valve Implantation Procedures. Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery, 2015, 10, 314-322.	0.9	1
67	Open vs. Minimally Invasive Mitral Valve Surgery: Surgical Technique, Indications and Results. Cardiovascular Engineering and Technology, 2015, 6, 160-166.	1.6	24
68	Extracellular matrix for reconstruction of cardiac structures after tumour resections. Interactive Cardiovascular and Thoracic Surgery, 2015, 20, 10-14.	1.1	4
69	Computed tomography for planning and postoperative imaging of transvenous mitral annuloplasty: first experience in an animal model. International Journal of Cardiovascular Imaging, 2015, 31, 135-142.	1.5	16
70	The Use of Extracellular Matrix Patches in Cardiac Surgery. Journal of Cardiac Surgery, 2015, 30, 145-148.	0.7	28
71	Simulated Prosthesis Overlay for Patient-Specific Planning of Transcatheter Aortic Valve Implantation Procedures. Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery, 2015, 10, 314-322.	0.9	0
72	Use of Extracellular Matrix Materials in Patients with Endocarditis. Thoracic and Cardiovascular Surgeon, 2014, 62, 076-079.	1.0	25

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73	Evaluation of calcium loss after transcatheter aortic valve implantation. <i>Interactive Cardiovascular and Thoracic Surgery</i> , 2014, 18, 67-72.	1.1	3
74	Experience with a "Hotline" Service for Outpatients on a Ventricular Assist Device. <i>Thoracic and Cardiovascular Surgeon</i> , 2014, 62, 409-413.	1.0	6
75	Stent Maps "Comparative Visualization for the Prediction of Adverse Events of Transcatheter Aortic Valve Implantations. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2014, 20, 2704-2713.	4.4	10
76	Diastolic Aortic "Right-Atrial Fistulation in Aortic and Tricuspid Valve Endocarditis. <i>The Thoracic and Cardiovascular Surgeon Reports</i> , 2014, 03, 019-022.	0.3	3
77	Frailty is a predictor of short- and mid-term mortality after elective cardiac surgery independently of age. <i>Interactive Cardiovascular and Thoracic Surgery</i> , 2014, 18, 580-585.	1.1	111
78	Concept and first experimental results of a new ferromagnetic assist device for extra-aortic counterpulsation. <i>Interactive Cardiovascular and Thoracic Surgery</i> , 2014, 18, 13-16.	1.1	7
79	Second-generation transapical valves: the Medtronic Engager system. <i>Multimedia Manual of Cardiothoracic Surgery: MMCTS / European Association for Cardio-Thoracic Surgery</i> , 2014, 2014, mmu001-mmu001.	0.1	6
80	Mitral valve surgery: Right lateral minithoracotomy or sternotomy? A systematic review and meta-analysis. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2014, 148, 1989-1995.e4.	0.8	106
81	Sizing the mitral annulus in healthy subjects and patients with mitral regurgitation: 2D versus 3D measurements from cardiac CT. <i>International Journal of Cardiovascular Imaging</i> , 2014, 30, 389-398.	1.5	24
82	Image-Based Mechanical Analysis of Stent Deformation: Concept and Exemplary Implementation for Aortic Valve Stents. <i>IEEE Transactions on Biomedical Engineering</i> , 2014, 61, 4-15.	4.2	34
83	Surviving 20 Years After Heart Transplantation: A Success Story. <i>Annals of Thoracic Surgery</i> , 2014, 97, 499-504.	1.3	24
84	The Cor-Knot Device May Serve as an Ideal Radiopaque Marker of the Annular Plane for Future Valve-in-Valve Implantation. <i>Annals of Thoracic Surgery</i> , 2014, 98, 1485-1486.	1.3	6
85	Safety and feasibility of novel technology fusing echocardiography and fluoroscopy images during MitraClip interventions. <i>EuroIntervention</i> , 2014, 9, 1210-1216.	3.2	57
86	Simulation of transcatheter aortic valve implantation under consideration of leaflet calcification. , 2013, 2013, 711-4.		19
87	Implantation of personalized, biocompatible mitral annuloplasty rings: feasibility study in an animal model. <i>Interactive Cardiovascular and Thoracic Surgery</i> , 2013, 16, 417-422.	1.1	12
88	Outcome of Patients Treated with Engager Transapical Aortic Valve Implantation. <i>Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery</i> , 2013, 8, 332-336.	0.9	5
89	Obesity Should Not Deter a Surgeon from Selecting a Minimally Invasive Approach for Mitral Valve Surgery. <i>Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery</i> , 2013, 8, 225-229.	0.9	3
90	Medtronic Engager, a bioprosthesis for transapical transcatheter aortic valve implantation. <i>EuroIntervention</i> , 2013, 9, S97-S100.	3.2	18

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91	Outcome of Patients Treated with Engager Transapical Aortic Valve Implantation. Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery, 2013, 8, 332-336.	0.9	0
92	Minimally invasive valve sparing mitral valve repair-the loop technique-how we do it. Annals of Cardiothoracic Surgery, 2013, 2, 818-24.	1.7	4
93	Chordae replacement versus leaflet resection in minimally invasive mitral valve repair. Annals of Cardiothoracic Surgery, 2013, 2, 809-13.	1.7	16
94	Negative microbiological results are not mandatory in deep sternal wound infections before wound closure. European Journal of Cardio-thoracic Surgery, 2012, 42, 306-310.	1.4	19
95	Feasibility of the EngagerÂ aortic transcatheter valve system using a flexible over-the-wire design. European Journal of Cardio-thoracic Surgery, 2012, 42, e48-e52.	1.4	29
96	Total arterial off-pump surgery provides excellent outcomes and does not compromise complete revascularization. European Journal of Cardio-thoracic Surgery, 2012, 41, e25-e31.	1.4	17
97	Off-pump surgery for the poor ventricle?. Heart and Vessels, 2012, 27, 258-264.	1.2	10
98	Mitral valve reconstruction - timing, surgical techniques and results. Swiss Medical Weekly, 2012, 142, w13715.	1.6	6
99	Transapical aortic valve implantation with anatomically oriented prostheses. Annals of Cardiothoracic Surgery, 2012, 1, 176-81.	1.7	2
100	Innovations in minimally invasive mitral valve pair. Surgical Technology International, 2012, 22, 207-12.	0.2	3
101	Comprehensive assessment of frailty for elderly high-risk patients undergoing cardiac surgeryâ†. European Journal of Cardio-thoracic Surgery, 2011, 39, 33-37.	1.4	276
102	Constrictive Pericarditis Presenting as a Large Mediastinal Mass Causing Functional Tricuspid and Pulmonary Stenosis. Circulation, 2011, 124, e487-91.	1.6	1
103	One-year follow-up of patients undergoing elective cardiac surgery assessed with the Comprehensive Assessment of Frailty test and its simplified form. Interactive Cardiovascular and Thoracic Surgery, 2011, 13, 119-123.	1.1	133
104	Cosegregation of Aortic Root Atherosclerosis and Intermediate Lipid Phenotypes on Chromosomes 2 and 8 in an Intercross of C57BL/6 and BALBc/ByJ Low-Density Lipoprotein Receptor <sup>âˆ’/âˆ’</sup> Mice. Arteriosclerosis, Thrombosis, and Vascular Biology, 2011, 31, 775-784.	2.4	13
105	State of the Art Review: Surgical Treatment of Acute Type A Aortic Dissection. Surgical Technology International, 0, , .	0.2	3
106	Virtual reality in cardiac interventionsâ€”New tools or new toys?. Journal of Cardiac Surgery, 0, , .	0.7	0