Marco A Zenati

List of Publications by Year in Descending Order

112 papers	1,190 citations	20 h-index	31 g-index
125 ext. papers	1,433 ext. citations	4 avg, IF	4.32 L-index

#	Paper	IF	Citations
112	A Coding Framework for Usability Evaluation of Digital Health Technologies. *Lecture Notes in Computer Science*, **2022**, 185-196	0.9	
111	Augmented Cognition in the Operating Room **2021**, 261-268		2
110	Commentary: The need for emotional intelligence coaching in cardiothoracic surgery. *Journal of Thoracic and Cardiovascular Surgery*, **2021**, 162, 1141-1142	1.5	1
109	Intermediate-Term Outcomes of Endoscopic or Open Vein Harvesting for Coronary Artery Bypass Grafting: The REGROUP Randomized Clinical Trial. *JAMA Network Open*, **2021**, 4, e211439	10.4	1
108	Towards an AI Coach to Infer Team Mental Model Alignment in Healthcare. **2021**, 2021, 39-44		3
107	Prevalence of Surgical Flow Disruptions Across Intra-operative High- and Low-Workload Phases in Cardiac Surgery. *Proceedings of the International Symposium of Human Factors and Ergonomics in Healthcare*, **2021**, 10, 263-266	0.5	
106	Dissecting Cardiac Surgery: A Video-based Recall Protocol to Elucidate Team Cognitive Processes in the Operating Room. *Annals of Surgery*, **2021**, 274, e181-e186	7.8	8
105	Commentary: The conundrum of cerebral malperfusion in aortic dissection. *Journal of Thoracic and Cardiovascular Surgery*, **2021**, 161, 1721	1.5	1
104	Analysis of Mirrored Psychophysiological Change of Cardiac Surgery Team Members During Open Surgery. *Journal of Surgical Education*, **2021**, 78, 622-629	3.4	7
103	Computer Vision in the Operating Room: Opportunities and Caveats. *IEEE Transactions on Medical Robotics and Bionics*, **2021**, 3, 2-10	3.1	5
102	Commentary: Nontechnical skills redux. *Journal of Thoracic and Cardiovascular Surgery*, **2021**,	1.5	
101	Fraction of expired oxygen: an additional safety approach to monitor oxygen delivery to the heart lung machine oxygenator. *Perfusion (United Kingdom)*, **2021**, 2676591211001594	1.9	
100	Harvesting the saphenous vein **2021**, 75-83		1
99	Randomized Trials in Cardiac Surgery: JACC Review Topic of the Week. *Journal of the American College of Cardiology*, **2020**, 75, 1593-1604	15.1	15
98	Artificial intelligence in cardiothoracic surgery. *Minerva Cardioangiologica*, **2020**, 68, 532-538	1.1	6
97	Feasibility of Healthcare ProvidersTAutonomic Activation Recognition in Real-Life Cardiac Surgery Using Noninvasive Sensors. *Communications in Computer and Information Science*, **2020**, 1293, 402-408	0.3	0
96	Postoperative Echocardiographic Appearance of the Mitral Valve After Nonresectional Leaflet Remodeling Repair Mimicking Thrombus. *Circulation: Cardiovascular Imaging*, **2020**, 13, e009853	3.9	

95	Commentary: Another Dutch treat. *Journal of Thoracic and Cardiovascular Surgery*, **2020**, 159, 1893-1894	1.5	
94	Cognitive Engineering to Improve Patient Safety and Outcomes in Cardiothoracic Surgery. *Seminars in Thoracic and Cardiovascular Surgery*, **2020**, 32, 1-7	1.7	16
93	Epiaortic Ultrasound for Assessment of Intraluminal Atheroma; Insights from the REGROUP Trial. *Journal of Cardiothoracic and Vascular Anesthesia*, **2020**, 34, 726-732	2.1	4
92	Sensors for Continuous Monitoring of Surgeon Ts Cognitive Workload in the Cardiac Operating Room. *Sensors*, **2020**, 20,	3.8	3
91	Digital Cognitive Aids to Support Adaptation of Surgical Processes to COVID-19 Protective Policies **2020**, 2020, 205-210		
90	Endoscopic versus Open Vein-Graft Harvesting for CABG. Reply. *New England Journal of Medicine*, **2019**, 380, e43	59.2	1
89	Physiological synchronization and entropy as measures of team cognitive load. *Journal of Biomedical Informatics*, **2019**, 96, 103250	10.2	17
88	Establishing a Ventilator-Heart Lung Machine Communication Bridge to Mitigate Errors when Weaning from Bypass. *Journal of Extra-Corporeal Technology*, **2019**, 51, 38-40	0.4	1
87	A Quick Reference Tool for Goal-Directed Perfusion in Cardiac Surgery. *Journal of Extra-Corporeal Technology*, **2019**, 51, 172-174	0.4	0
86	Organ-mounted robot localization via function approximation. *International Journal of Medical Robotics and Computer Assisted Surgery*, **2019**, 15, e1971	2.9	
85	Randomized Trial of Endoscopic or Open Vein-Graft Harvesting for Coronary-Artery Bypass. *New England Journal of Medicine*, **2019**, 380, 132-141	59.2	51
84	First Reported Use of Team Cognitive Workload for Root Cause Analysis in Cardiac Surgery. *Seminars in Thoracic and Cardiovascular Surgery*, **2019**, 31, 394-396	1.7	8
83	Beating-heart registration for organ-mounted robots. *International Journal of Medical Robotics and Computer Assisted Surgery*, **2018**, 14, e1905	2.9	2
82	Mitral valve surgery in the US Veterans Administration health system: 10-year outcomes and trends. *Journal of Thoracic and Cardiovascular Surgery*, **2018**, 155, 105-117.e5	1.5	15
81	Cutting off the lizard Ts tail in surgery. *Journal of Thoracic and Cardiovascular Surgery*, **2018**, 156, 1220-1221	1.5	3
80	Cognitive Support to Promote Shared Mental Models during Safety-Critical Situations in Cardiac Surgery (Late Breaking Report) **2018**, 2018, 165-167		7
79	Development of an Interactive Dashboard to Analyze Cognitive Workload of Surgical Teams During Complex Procedural Care **2018**, 2018, 77-82		8
78	Process Driven Guidance for Complex Surgical Procedures **2018**, 2018, 175-184	0.7	4

77	A Novel Interoperable Safety System for Improved Coordination and Communication in Cardiac Surgery. *Lecture Notes in Computer Science*, **2018**, 11041, 39-45	0.9	2
76	Intelligent Interruption Management System to Enhance Safety and Performance in Complex Surgical and Robotic Procedures. *Lecture Notes in Computer Science*, **2018**, 11041, 62-68	0.9	6
75	Toward Improving Surgical Outcomes by Incorporating Cognitive Load Measurement into Process-Driven Guidance **2018**, 2018, 2-9		5
74	Off-Pump Coronary Artery Bypass Grafting: 30 Years of Debate. *Journal of the American Heart Association*, **2018**, 7, e009934	6	33
73	Physiological motion modeling for organ-mounted robots. *International Journal of Medical Robotics and Computer Assisted Surgery*, **2017**, 13, e1805	2.9	3
72	Cognitive Support During High-Consequence Episodes of Care in Cardiovascular Surgery **2017**, 2017,		6
71	Data Safety Monitoring Board: Composition and Role **2017**, 329-334		1
70	Computer-Assisted Process Modeling to Enhance Intraoperative Safety in Cardiac Surgery. *JAMA Surgery*, **2016**, 151, 1183-1186	5.4	1
69	Design of a Coupled Thermoresponsive Hydrogel and Robotic System for Postinfarct Biomaterial Injection Therapy. *Annals of Thoracic Surgery*, **2016**, 102, 780-786	2.7	18
68	Choice of vein-harvest technique for coronary artery bypass grafting: rationale and design of the REGROUP trial. *Clinical Cardiology*, **2014**, 37, 325-30	3.3	14
67	Space-Time Localization and Registration on the Beating Heart. *IEEE International Conference on Intelligent Robots and Systems*, **2013**, 2012, 3792-3797	0.6	
66	Conduits in coronary artery bypass grafting. *Seminars in Thoracic and Cardiovascular Surgery*, **2013**, 25, 273-9	1.7	3
65	Evaluation and management of the atrial fibrillation patient: a report from the Society of Cardiovascular Patient Care. *Critical Pathways in Cardiology*, **2013**, 12, 107-15	1.3	4
64	Predictors and impact of postoperative atrial fibrillation on patientsToutcomes: a report from the Randomized On Versus Off Bypass trial. *Journal of Thoracic and Cardiovascular Surgery*, **2012**, 143, 93-102	1.5	51
63	Towards localizing on the surface of the beating heart. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2012**, 2012, 1413-6	0.9	1
62	Toward Onboard Estimation of Physiological Phase for an Epicardial Crawling Robot **2012**, 2012, 6290716	1.3	
61	Synchronization of epicardial crawling robot with heartbeat and respiration for improved safety and efficiency of locomotion. *International Journal of Medical Robotics and Computer Assisted Surgery*, **2012**, 8, 97-106	2.9	11
60	Outcomes of coronary artery bypass grafting and reduction annuloplasty for functional ischemic mitral regurgitation: a prospective multicenter study (Randomized Evaluation of a Surgical Treatment for Off-Pump Repair of the Mitral Valve). *Journal of Thoracic and Cardiovascular Surgery*, **2011**, 141, 91-7	1.5	33

59	Impact of endoscopic versus open saphenous vein harvest technique on late coronary artery bypass grafting patient outcomes in the ROOBY (Randomized On/Off Bypass) Trial. *Journal of Thoracic and Cardiovascular Surgery*, **2011**, 141, 338-44	1.5	103
58	Shape estimation for image-guided surgery with a highly articulated snake robot **2011**,		27
57	Position Estimation of an Epicardial Crawling Robot on the Beating Heart by Modeling of Physiological Motion. *IEEE International Conference on Intelligent Robots and Systems*, **2011**, 2011, 4522-4527	0.6	3
56	Fourier modeling of porcine heartbeat and respiration in vivo for synchronization of HeartLander robot locomotion. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2011**, 2011, 7041-4	0.9	1
55	Accurate Positioning for Intervention on the Beating Heart Using a Crawling Robot **2011**, 105-121		
54	Application of the HeartLander crawling robot for injection of a thermally sensitive anti-remodeling agent for myocardial infarction therapy. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*	0.9	3
53	Evaluation in vitro of a treatment planning algorithm for an epicardial crawling robot. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2010**, 2010, 2275-8	0.9	
52	Impact of Subxiphoid Video Pericardioscopy with a Rigid Shaft on Cardiac Hemodynamics in a Porcine Model. *Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery*, **2010**, 5, 51-54	1.5	5
51	Measurement and Optimization of Minimally Invasive Intervention Device Design Fitness Using a Multiobjective Weighted Isotropy Index. *Journal of Medical Devices, Transactions of the ASME*, **2010**, 4,	1.3	2
50	Subxiphoid epicardial left ventricular pacing lead placement is feasible. *Journal of Thoracic and Cardiovascular Surgery*, **2010**, 139, 1661-2	1.5	2
49	Severe functional mitral regurgitation arising from isolated annular dilatation. *Annals of Thoracic Surgery*, **2010**, 90, 1343-5	2.7	20
48	Impact of Subxiphoid Video Pericardioscopy with a Rigid Shaft on Cardiac Hemodynamics in a Porcine Model. *Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery*, **2010**, 5, 51-54	1.5	
47	A Miniature Mobile Robot for Navigation and Positioning on the Beating Heart. *IEEE Transactions on Robotics*, **2009**, 25, 1109-1124	6.5	49
46	A highly articulated robotic surgical system for minimally invasive surgery. *Annals of Thoracic Surgery*, **2009**, 87, 1253-6	2.7	91
45	A fusion protein of hepatocyte growth factor enhances reconstruction of myocardium in a cardiac patch derived from porcine urinary bladder matrix. *Journal of Thoracic and Cardiovascular Surgery*, **2008**, 136, 1309-17	1.5	57
44	Highly fenestrated septum primum leads to failure of Amplatzer septal defect closure. *Annals of Thoracic Surgery*, **2008**, 86, 998-1000	2.7	3
43	Minimally invasive epicardial left atrial ablation and appendectomy for refractory atrial tachycardia. *Annals of Thoracic Surgery*, **2008**, 86, 1375-7	2.7	5
42	Minimally invasive epicardial injections using a novel semiautonomous robotic device. *Circulation*, **2008**, 118, S115-20	16.7	38

41	A novel highly articulated robotic surgical system for epicardial ablation. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2008**, 2008, 250-3	0.9	15
40	Electromechanical characterization of a tissue-engineered myocardial patch derived from extracellular matrix. *Journal of Thoracic and Cardiovascular Surgery*, **2007**, 133, 979-85	1.5	37
39	Impact of beating heart left atrial ablation on left-sided heart mechanics. *Journal of Thoracic and Cardiovascular Surgery*, **2007**, 134, 982-8	1.5	3
38	Epicardial left ventricular mapping using subxiphoid video pericardioscopy. *Annals of Thoracic Surgery*, **2007**, 84, 2106-7	2.7	22
37	Electrophysiological Basis of Atrial Fibrillation **2007**, 18-3		
36	Neurological Basis of Atrial Fibrillation **2007**, 19-28		
35	Mechanical Basis of Atrial Fibrillation **2007**, 29-49		
34	Molecular Basis of Atrial Fibrillation **2007**, 50-64		
33	Atrial Plasticity **2007**, 65-84		
32	Atrioventricular Node Ablation **2007**, 87-92		
31	Percutaneous Atrial Catheter Ablation **2007**, 93-112		
30	Implantable Device Therapy **2007**, 113-130		
29	Surgical Ablation Therapy I: Maze Procedure **2007**, 131-137		
28	Surgical Ablation Therapy II: Endocardium-Based Catheter Ablation **2007**, 138-145		
27	Surgical Ablation Therapy III: Epicardium-Based Catheter Ablation **2007**, 146-151		
26	Modification of the Left Atrial Appendage **2007**, 152-156		
25	Transpericardial Therapy **2007**, 159-170		
24	Percutaneous subxiphoid access to the epicardium using a miniature crawling robotic device. *Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery*, **2006**, 1, 227-31	1.5	8

23	Epicardial Atrial Ablation Using a Novel Articulated Robotic Medical Probe via a Percutaneous Subxiphoid Approach. *Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery* , **2006**, 1, 335-340	1.5	
22	Epicardial Atrial Ablation Using a Novel Articulated Robotic Medical Probe Via a Percutaneous Subxiphoid Approach. *Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery* , **2006**, 1, 335-340	1.5	20
21	Robotic implantation of a multichamber cardiac resynchronization therapy defibrillator. *PACE - Pacing and Clinical Electrophysiology*, **2006**, 29, 906-9	1.6	8
20	Percutaneous Subxiphoid Access to the Epicardium Using a Miniature Crawling Robotic Device. *Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery*, **2006**, 1, 227-231	1.5	
19	Serial dobutamine stress echocardiography with Doppler assessment of the left internal thoracic artery graft after minimally invasive bypass for a patient with an orthotopic heart transplant. *Journal of Heart and Lung Transplantation*, **2004**, 23, 256-9	5.8	2
18	Prototype epicardial crawling device for intrapericardial intervention on the beating heart. *Heart Surgery Forum*, **2004**, 7, E639-43	0.7	18
17	Crawling on the Heart: A Mobile Robotic Device for Minimally Invasive Cardiac Interventions. *Lecture Notes in Computer Science*, **2004**, 9-16	0.9	10
16	Microelectromechanical systems for endoscopic cardiac surgery. *Journal of Thoracic and Cardiovascular Surgery*, **2003**, 126, 851-2	1.5	8
15	A new device for beating heart bipolar radiofrequency atrial ablation. *Journal of Thoracic and Cardiovascular Surgery*, **2003**, 126, 1859-66	1.5	22
14	Epicardium-based left atrial ablation: impact on electromechanical properties. *Journal of Cardiovascular Electrophysiology*, **2003**, 14, 1087-92	2.7	5
13	Left heart pacing lead implantation using subxiphoid videopericardioscopy. *Journal of Cardiovascular Electrophysiology*, **2003**, 14, 949-53	2.7	46
12	Experimental Off-Pump Coronary Bypass Using a Robotic Telemanipulation System. *Computer Aided Surgery*, **2002**, 7, 248-253		1
11	Images in cardiovascular medicine. Fulminant Clostridium septicum aortitis. *Circulation*, **2002**, 105, 1871	16.7	10
10	Outcomes of lung volume reduction surgery followed by lung transplantation: a matched cohort study. *Annals of Thoracic Surgery*, **2002**, 73, 1587-93	2.7	31
9	Experimental off-pump coronary bypass using a robotic telemanipulation system. *Computer Aided Surgery*, **2002**, 7, 248-53		
8	A new live animal training model for off-pump coronary bypass surgery. *Heart Surgery Forum*, **2002**, 5, 150-1	0.7	2
7	Minimally invasive direct coronary artery bypass surgery under high thoracic epidural. *Anesthesia and Analgesia*, **2001**, 93, 1486-8, table of contents	3.9	11
6	Minimally invasive coronary bypass without general endotracheal anesthesia. *Annals of Thoracic Surgery*, **2001**, 72, 1380-2	2.7	9

5	Robotic heart surgery. *Cardiology in Review*, **2001**, 9, 287-94	3.2	26
4	Transmyocardial laser revascularization in the patient with unmanageable unstable angina. *Annals of Thoracic Surgery*, **1999**, 68, 1203-9	2.7	35
3	Lung transplantation for respiratory failure resulting from systemic disease. *Annals of Thoracic Surgery*, **1997**, 64, 1630-4	2.7	46
2	Shape estimation for image-guided surgery with a highly articulated snake robot		1
1	Articulated Robotic MedProbe snake robot for single port surgery284-287		