

Mark D Handschumacher

List of Publications by Year in descending order

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82
papers

13,101
citations

50276
46
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58581
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83
all docs

83
docs citations

83
times ranked

10912
citing authors

#	ARTICLE	IF	CITATIONS
1	Guidelines for the Echocardiographic Assessment of the Right Heart in Adults: A Report from the American Society of Echocardiography. Journal of the American Society of Echocardiography, 2010, 23, 685-713.	2.8	5,724
2	Three-dimensional echocardiographic reconstruction of the mitral valve, with implications for the diagnosis of mitral valve prolapse.. Circulation, 1989, 80, 589-598.	1.6	497
3	Insights From Three-Dimensional Echocardiography Into the Mechanism of Functional Mitral Regurgitation. Circulation, 1997, 96, 1999-2008.	1.6	482
4	Geometric Determinants of Functional Tricuspid Regurgitation. Circulation, 2006, 114, 143-149.	1.6	331
5	Mechanism of ischemic mitral regurgitation with segmental left ventricular dysfunction: three-dimensional echocardiographic studies in models of acute and chronic progressive regurgitation. Journal of the American College of Cardiology, 2001, 37, 641-648.	2.8	292
6	Antigenic determinants in proteins coincide with surface regions accessible to large probes (antibody) Tj ETQq0 0 0 rgBT /Overlock 10 T 226-230.	7.1	288
7	Chordal Cutting. Circulation, 2001, 104, 1958-1963.	1.6	285
8	Mitral valve diseaseâ€”morphology and mechanisms. Nature Reviews Cardiology, 2015, 12, 689-710.	13.7	281
9	Active Adaptation of the Tethered Mitral Valve. Circulation, 2009, 120, 334-342.	1.6	273
10	Refined structure of alkaline phosphatase from Escherichia coli at 2.8 Å... resolution. Journal of Molecular Biology, 1985, 186, 417-433.	4.2	244
11	Mitral Leaflet Adaptation to Ventricular Remodeling. Circulation, 2008, 118, 845-852.	1.6	240
12	Design of a New Surgical Approach for Ventricular Remodeling to Relieve Ischemic Mitral Regurgitation. Circulation, 2000, 101, 2756-2763.	1.6	211
13	Three-dimensional echocardiography. In vivo validation for left ventricular volume and function.. Circulation, 1993, 88, 1715-1723.	1.6	171
14	A new integrated system for three-dimensional echocardiographic reconstruction: Development and validation for ventricular volume with application in human subjects. Journal of the American College of Cardiology, 1993, 21, 743-753.	2.8	155
15	Reverse Ventricular Remodeling Reduces Ischemic Mitral Regurgitation. Circulation, 2002, 106, 2594-2600.	1.6	147
16	Mechanism of dynamic regurgitant orifice area variation in functional mitral regurgitation. Journal of the American College of Cardiology, 1999, 33, 538-545.	2.8	140
17	Three-dimensional echocardiography. In vivo validation for right ventricular volume and function.. Circulation, 1994, 89, 2342-2350.	1.6	136
18	Proximal Flow Convergence Region as Assessed by Real-time 3-Dimensional Echocardiography: Challenging the Hemispheric Assumption. Journal of the American Society of Echocardiography, 2007, 20, 389-396.	2.8	133

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19	Effect of three-dimensional valve shape on the hemodynamics of aortic stenosis. Journal of the American College of Cardiology, 2002, 40, 1479-1486.	2.8	113
20	Mitral Leaflet Adaptation to Ventricular Remodeling: Prospective Changes in a Model of Ischemic Mitral Regurgitation. Circulation, 2009, 120, S99-S103.	1.6	111
21	Paradoxical Decrease in Ischemic Mitral Regurgitation With Papillary Muscle Dysfunction. Circulation, 2001, 104, 1952-1957.	1.6	109
22	Direct Measurement of Vena Contracta Area by Real-Time 3-Dimensional Echocardiography for Assessing Severity of Mitral Regurgitation. American Journal of Cardiology, 2009, 104, 978-983.	1.6	106
23	Mitral Valve Adaptation to Isolated Annular Dilation. JACC: Cardiovascular Imaging, 2019, 12, 665-677.	5.3	102
24	Effect of Losartan on Mitral Valve Changes After Myocardial Infarction. Journal of the American College of Cardiology, 2017, 70, 1232-1244.	2.8	97
25	Quantitative Assessment of Regional Myocardial Function in Mice by Tissue Doppler Imaging. Circulation, 2005, 111, 2611-2616.	1.6	94
26	Myocardial Infarction Alters Adaptation of the Tethered Mitral Valve. Journal of the American College of Cardiology, 2016, 67, 275-287.	2.8	93
27	Mechanistic insights into functional mitral regurgitation. Current Cardiology Reports, 2002, 4, 125-129.	2.9	89
28	Mitral Regurgitation Augments Post-Myocardial Infarction Remodeling. Journal of the American College of Cardiology, 2008, 51, 476-486.	2.8	83
29	The Echo Score Revisited. Circulation, 2014, 129, 886-895.	1.6	83
30	Protein antigenicity: a static surface property. Trends in Immunology, 1987, 8, 26-31.	7.5	82
31	Three-dimensional echocardiography: Techniques and applications. American Journal of Cardiology, 1992, 69, H121-H130.	1.6	82
32	In Vivo Measurement of Mitral Leaflet Surface Area and Subvalvular Geometry in Patients With Asymmetrical Septal Hypertrophy. Circulation, 2010, 122, 1298-1307.	1.6	81
33	Mitral Valve Enlargement in Chronic Aortic Regurgitation as a Compensatory Mechanism to Prevent Functional Mitral Regurgitation in the Dilated Left Ventricle. Journal of the American College of Cardiology, 2013, 61, 1809-1816.	2.8	77
34	Quantitative Three-Dimensional Reconstruction of Aneurysmal Left Ventricles. Circulation, 1995, 91, 222-230.	1.6	69
35	Mechanism of Decrease in Mitral Regurgitation After Cardiac Resynchronization Therapy. Circulation: Cardiovascular Imaging, 2009, 2, 444-450.	2.6	68
36	Usefulness of Three-Dimensionally Guided Assessment of Mitral Stenosis Using Matrix-Array Ultrasound. American Journal of Cardiology, 2005, 96, 1151-1156.	1.6	62

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37	Three-dimensional echocardiography improves noninvasive assessment of left ventricular volume and performance. American Heart Journal, 1995, 130, 812-822.	2.7	61
38	Three-dimensional Echocardiographic Reconstruction of Right Ventricular Volume: In Vitro Comparison With Two-Dimensional Methods. Journal of the American Society of Echocardiography, 1994, 7, 150-158.	2.8	59
39	Gene Delivery of Sarcoplasmic Reticulum Calcium ATPase Inhibits Ventricular Remodeling in Ischemic Mitral Regurgitation. Circulation: Heart Failure, 2010, 3, 627-634.	3.9	59
40	Location of antigenic epitopes on antibody molecules. Journal of Molecular Biology, 1986, 189, 715-721.	4.2	58
41	Quantitative Analysis of Intraventricular Dyssynchrony Using Wall Thickness by Multidetector Computed Tomography. JACC: Cardiovascular Imaging, 2008, 1, 772-781.	5.3	58
42	Leaflet concavity: a rapid visual clue to the presence and mechanism of functional mitral regurgitation. Journal of the American Society of Echocardiography, 2003, 16, 1301-1308.	2.8	56
43	Assessment of Mitral Valve Adaptation With Gated Cardiac Computed Tomography. Circulation: Cardiovascular Imaging, 2013, 6, 784-789.	2.6	56
44	Early Repair of Moderate Ischemic Mitral Regurgitation Reverses Left Ventricular Remodeling. Circulation, 2007, 116, 1288-93.	1.6	55
45	Three-dimensional reconstruction of ventricular septal defects: Validation studies and in vivo feasibility. Journal of the American College of Cardiology, 1994, 23, 201-208.	2.8	52
46	Basic Mechanisms of Mitral Regurgitation. Canadian Journal of Cardiology, 2014, 30, 971-981.	1.7	51
47	Mitral Leaflet Changes Following Myocardial Infarction. Circulation: Cardiovascular Imaging, 2017, 10, .	2.6	50
48	Leaflet Area as a Determinant of Tricuspid Regurgitation Severity in Patients With Pulmonary Hypertension. Circulation: Cardiovascular Imaging, 2015, 8, .	2.6	45
49	The Power-Velocity Integral at the Vena Contracta. Circulation, 2000, 102, 1053-1061.	1.6	43
50	Late Repair of Ischemic Mitral Regurgitation Does Not Prevent Left Ventricular Remodeling: Importance of Timing for Beneficial Repair. Circulation, 2013, 128, S248-S252.	1.6	43
51	Three-dimensional echocardiography: In vivo validation for right ventricular free wall mass as an index of hypertrophy. Journal of the American College of Cardiology, 1994, 23, 1715-1722.	2.8	41
52	Persistent Reduction of Ischemic Mitral Regurgitation by Papillary Muscle Repositioning: Structural Stabilization of the Papillary Muscle Ventricular Wall Complex. Circulation, 2007, 116, 1259-1263.	1.6	40
53	Comprehensive Annular and Subvalvular Repair of Chronic Ischemic Mitral Regurgitation Improves Long-Term Results With the Least Ventricular Remodeling. Circulation, 2012, 126, 2720-2727.	1.6	39
54	Relief of Mitral Leaflet Tethering Following Chronic Myocardial Infarction by Chordal Cutting Diminishes Left Ventricular Remodeling. Circulation: Cardiovascular Imaging, 2010, 3, 679-686.	2.6	36

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55	Mitral Regurgitation After Anteroapical Myocardial Infarction. <i>Circulation</i> , 2011, 123, 1529-1536.	1.6	35
56	Aortic Valve Adaptation to Aortic Root Dilatation. <i>Circulation: Cardiovascular Imaging</i> , 2014, 7, 828-835.	2.6	35
57	Insights From Three-dimensional Echocardiographic Laser Stereolithography. <i>Circulation</i> , 1996, 94, 452-459.	1.6	35
58	Attenuated Mitral Leaflet Enlargement Contributes to Functional Mitral Regurgitation After Myocardial Infarction. <i>Journal of the American College of Cardiology</i> , 2020, 75, 395-405.	2.8	33
59	Crystallographic observations of the metal ion triple in the active site region of alkaline phosphatase. <i>Journal of Molecular Biology</i> , 1983, 170, 575-581.	4.2	32
60	Three-dimensional echocardiography: The influence of number of component images on accuracy of left ventricular volume quantitation. <i>Journal of the American Society of Echocardiography</i> , 1996, 9, 147-155.	2.8	32
61	Assessment of right ventricular function by real-time three-dimensional echocardiography improves accuracy and decreases interobserver variability compared with conventional two-dimensional views. <i>European Journal of Echocardiography</i> , 2009, 10, 619-624.	2.3	32
62	Mechanisms of Functional Mitral Regurgitation in Ischemic Cardiomyopathy Determined by Transesophageal Echocardiography (from the Surgical Treatment for Ischemic Heart Failure Trial). <i>American Journal of Cardiology</i> , 2013, 112, 1812-1818.	1.6	32
63	A Novel Approach for Reducing Ischemic Mitral Regurgitation by Injection of a Polymer to Reverse Remodel and Reposition Displaced Papillary Muscles. <i>Circulation</i> , 2008, 118, S263-9.	1.6	31
64	Acute Leukemia is Associated with Cardiac Alterations before Chemotherapy. <i>Journal of the American Society of Echocardiography</i> , 2017, 30, 1111-1118.	2.8	27
65	Quantitative three-dimensional reconstruction of left ventricular volume with complete borders detected by acoustic quantification underestimates volume. <i>American Heart Journal</i> , 1996, 131, 553-559.	2.7	23
66	Quantification of pericardial effusions by three-dimensional echocardiography. <i>Journal of the American College of Cardiology</i> , 1994, 24, 254-259.	2.8	22
67	Impact of Mitral Regurgitation on Exercise Capacity and Clinical Outcomes in Patients With Ischemic Left Ventricular Dysfunction. <i>American Journal of Cardiology</i> , 2011, 108, 1714-1720.	1.6	22
68	Role of LA Shape in Predicting Embolic Cerebrovascular Events in Mitral Stenosis. <i>JACC: Cardiovascular Imaging</i> , 2014, 7, 453-461.	5.3	22
69	Mechanical effects of MitraClip on leaflet stress and myocardial strain in functional mitral regurgitation – A finite element modeling study. <i>PLoS ONE</i> , 2019, 14, e0223472.	2.5	19
70	Polymer Injection Therapy to Reverse Remodel the Papillary Muscles. <i>Circulation: Cardiovascular Interventions</i> , 2010, 3, 499-505.	3.9	16
71	Characterization of five epitopes of human renin from a computer model. <i>Biochemistry</i> , 1988, 27, 156-164.	2.5	15
72	Estimation of Radial Strain and Rotation Using a New Algorithm Based on Speckle Tracking. <i>Journal of the American Society of Echocardiography</i> , 2008, 21, 1168-1174.	2.8	15

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73	Effect of destructive pulse duration on the detection of myocardial perfusion in myocardial contrast echocardiography: In vitro and in vivo observations. Journal of the American Society of Echocardiography, 2002, 15, 1440-1447.	2.8	13
74	The prognostic value of post-exercise blood pressure reduction in patients with hypertensive response during exercise stress test. International Journal of Cardiology, 2006, 111, 352-357.	1.7	13
75	Persistence of mitral regurgitation following ring annuloplasty: is the papillary muscle outside or inside the ring?. Journal of Heart Valve Disease, 2012, 21, 218-24.	0.5	13
76	Pseudodyskinesia of the Inferior Left Ventricular Wall: Recognizing an Echocardiographic Mimic of Myocardial Infarction. Journal of the American Society of Echocardiography, 2007, 20, 1374-1379.	2.8	11
77	In vivo assessment of aortic root geometry in normal controls using 3D analysis of computed tomography. European Heart Journal Cardiovascular Imaging, 2017, 18, 780-786.	1.2	11
78	Efficacy of Polymer Injection for Ischemic Mitral Regurgitation. JACC: Cardiovascular Interventions, 2015, 8, 355-363.	2.9	10
79	Contraction Timing Patterns in Patients Treated for Breast Cancer Before and After Anthracyclines Therapy. Journal of the American Society of Echocardiography, 2017, 30, 454-460.	2.8	9
80	Three-dimensional echocardiography: A new method for real-time integration and computer storage of images and positional data in high volume. Journal of the American College of Cardiology, 1991, 17, A3.	2.8	3
81	Illusion of contraction from Out-of-Plane translation: can doppler tissue velocities resolve it?. Journal of the American Society of Echocardiography, 2003, 16, 832-840.	2.8	3
82	Left atrial cross-sectional area is a novel measure of atrial shape associated with cardioembolic strokes. Heart, 2020, 106, 1176-1182.	2.9	2