

Marek Belohlavek

List of Publications by Year in descending order

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56
papers

4,049
citations

361296

20
h-index

161767

54
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57
all docs

57
docs citations

57
times ranked

4574
citing authors

#	ARTICLE	IF	CITATIONS
1	Automatic segmentation of the left ventricle in echocardiographic images using convolutional neural networks. Quantitative Imaging in Medicine and Surgery, 2021, 11, 1763-1781.	1.1	20
2	Doppler-Guided Acoustically Active Injection Catheter. Journal of Ultrasound in Medicine, 2021, , .	0.8	0
3	A hybrid <scp>echocardiography-CFD</scp> framework for ventricular flow simulations. International Journal for Numerical Methods in Biomedical Engineering, 2020, 36, e03352.	1.0	9
4	Real-Time Visualization of an Acoustically Active Injection Catheter With Ultrasound Imaging: Algorithm and <i>In Vivo</i> Validation in a Swine Model. IEEE Transactions on Biomedical Engineering, 2019, 66, 3212-3219.	2.5	2
5	A Real-time Color Doppler Marker for Echocardiographic Guidance of an Acoustically Active Extracorporeal Membrane Oxygenation Cannula. Journal of Ultrasound in Medicine, 2019, 38, 1875-1885.	0.8	4
6	An Interposed Pad in Open-Chest Echocardiographic Porcine Scans for Mimicking Ultrasound Signal Attenuation in a Human Chest. Journal of Ultrasound in Medicine, 2018, 37, 501-509.	0.8	5
7	Unambiguous Identification and Visualization of an Acoustically Active Catheter by Ultrasound Imaging in Real Time: Theory, Algorithm, and Phantom Experiments. IEEE Transactions on Biomedical Engineering, 2018, 65, 1468-1475.	2.5	12
8	Left Ventricular Septal Hypertrophy in Elderly Patients With Aortic Stenosis. Journal of Ultrasound in Medicine, 2018, 37, 217-224.	0.8	7
9	Acoustic navigation of intramyocardial injection needle catheter using color doppler echocardiography. , 2018, , .		1
10	Acoustically Active Catheter for Intracardiac Navigation by Color Doppler Ultrasonography. Ultrasound in Medicine and Biology, 2017, 43, 1888-1896.	0.7	6
11	Automated Three-Dimensional Reconstruction of the Left Ventricle From Multiple-Axis Echocardiography. Journal of Biomechanical Engineering, 2016, 138, .	0.6	2
12	Acoustically Active Injection Catheter Guided by Ultrasound: Navigation Tests in Acutely Ischemic Porcine Hearts. Ultrasound in Medicine and Biology, 2014, 40, 1650-1659.	0.7	7
13	Left Ventricular Flow Analysis: Recent Advances in Numerical Methods and Applications in Cardiac Ultrasound. Computational and Mathematical Methods in Medicine, 2013, 2013, 1-11.	0.7	23
14	Weighted Least-Squares Finite Element Method for Cardiac Blood Flow Simulation with Echocardiographic Data. Computational and Mathematical Methods in Medicine, 2012, 2012, 1-9.	0.7	8
15	Detection of Progressive Myocardial Tissue Injury by Ultrasonic-Integrated Backscatter Immediately After Coronary Reperfusion. Ultrasound in Medicine and Biology, 2012, 38, 1662-1669.	0.7	1
16	Post-Systolic Shortening. JACC: Cardiovascular Imaging, 2012, 5, 12-14.	2.3	2
17	Accurate Guidance of a Catheter by Ultrasound Imaging and Identification of a Catheter Tip by Pulsed-Wave Doppler. PACE - Pacing and Clinical Electrophysiology, 2012, 35, 44-50.	0.5	10
18	Current and Evolving Echocardiographic Techniques for the Quantitative Evaluation of Cardiac Mechanics: ASE/EAE Consensus Statement on Methodology and Indications. Journal of the American Society of Echocardiography, 2011, 24, 277-313.	1.2	1,026

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19	Current and Evolving Echocardiographic Techniques for the Quantitative Evaluation of Cardiac Mechanics: ASE/EAE Consensus Statement on Methodology and Indications Endorsed by the Japanese Society of Echocardiography. <i>European Journal of Echocardiography</i> , 2011, 12, 167-205.	2.3	796
20	Flow Velocity Vector Fields by Ultrasound Particle Imaging Velocimetry. <i>Journal of Ultrasound in Medicine</i> , 2011, 30, 187-195.	0.8	37
21	Impact of pericardial adhesions on diastolic function as assessed by vortex formation time, a parameter of transmitral flow efficiency. <i>Cardiovascular Ultrasound</i> , 2010, 8, 42.	0.5	19
22	Increase in the Late Diastolic Filling Force Is Associated With Impaired Transmitral Flow Efficiency in Acute Moderate Elevation of Left Ventricular Afterload. <i>Journal of Ultrasound in Medicine</i> , 2009, 28, 175-182.	0.8	10
23	Impact of Acute Moderate Elevation in Left Ventricular Afterload on Diastolic Transmitral Flow Efficiency: Analysis by Vortex Formation Time. <i>Journal of the American Society of Echocardiography</i> , 2009, 22, 427-431.	1.2	36
24	Patients With Alzheimer Disease Have Altered Transmitral Flow. <i>Journal of Ultrasound in Medicine</i> , 2009, 28, 1493-1500.	0.8	34
25	Classification of acute myocardial ischemia by artificial neural network using echocardiographic strain waveforms. <i>Computers in Biology and Medicine</i> , 2008, 38, 416-424.	3.9	6
26	Comparison of Usefulness of Tissue Doppler Imaging Versus Brain Natriuretic Peptide for Differentiation of Constrictive Pericardial Disease from Restrictive Cardiomyopathy. <i>American Journal of Cardiology</i> , 2008, 102, 357-362.	0.7	34
27	Disparate Patterns of Left Ventricular Mechanics Differentiate Constrictive Pericarditis From Restrictive Cardiomyopathy. <i>JACC: Cardiovascular Imaging</i> , 2008, 1, 29-38.	2.3	128
28	Doppler Strain Imaging Closely Reflects Myocardial Energetic Status in Acute Progressive Ischemia and Indicates Energetic Recovery After Reperfusion. <i>Journal of the American Society of Echocardiography</i> , 2008, 21, 961-968.	1.2	11
29	Electromechanical Activation Sequence in Normal Heart. <i>Heart Failure Clinics</i> , 2008, 4, 303-314.	1.0	21
30	Arterioventricular Coupling and Ventricular Efficiency After Antihypertensive Therapy. <i>Hypertension</i> , 2008, 51, 275-281.	1.3	26
31	Does Implantation of Sonomicrometry Crystals Alter Regional Cardiac Muscle Function?. <i>Journal of the American Society of Echocardiography</i> , 2007, 20, 1407-1412.	1.2	5
32	Left Ventricular Form and Function Revisited: Applied Translational Science to Cardiovascular Ultrasound Imaging. <i>Journal of the American Society of Echocardiography</i> , 2007, 20, 539-551.	1.2	261
33	Left Ventricular Isovolumic Flow Sequence During Sinus and Paced Rhythms. <i>Journal of the American College of Cardiology</i> , 2007, 49, 899-908.	1.2	158
34	Parametric Detection and Measurement of Perfusion Defects in Attenuated Contrast Echocardiographic Images. <i>Journal of Ultrasound in Medicine</i> , 2007, 26, 739-748.	0.8	9
35	Parametric harmonic-to-fundamental ratio contrast echocardiography: A novel approach to identification and accurate measurement of left ventricular area under variable levels of ultrasound signal attenuation. <i>Ultrasonics</i> , 2007, 46, 109-118.	2.1	3
36	Analysis of Postsystolic Myocardial Thickening Work in Selective Myocardial Layers During Progressive Myocardial Ischemia. <i>Journal of the American Society of Echocardiography</i> , 2006, 19, 1102-1111.	1.2	14

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37	Apex-to-Base Dispersion in Regional Timing of Left Ventricular Shortening and Lengthening. Journal of the American College of Cardiology, 2006, 47, 163-172.	1.2	193
38	Left Ventricular Structure and Function. Journal of the American College of Cardiology, 2006, 48, 1988-2001.	1.2	416
39	Biphasic tissue Doppler waveforms during isovolumic phases are associated with asynchronous deformation of subendocardial and subepicardial layers. Journal of Applied Physiology, 2005, 99, 1104-1111.	1.2	96
40	Delayed Onset of Subendocardial Diastolic Thinning at Rest Identifies Hypoperfused Myocardium. Circulation, 2005, 111, 2943-2950.	1.6	38
41	Spectral Normalization for Ultrasonic Contrast Microbubble Detection. Ultrasonic Imaging, 2004, 26, 150-162.	1.4	4
42	Strain rate and strain: A step-by-step approach to image and data acquisition. Journal of the American Society of Echocardiography, 2004, 17, 1011-1020.	1.2	101
43	Ultrasound Stimulated Vibro-acoustography. Lecture Notes in Computer Science, 2004, , 1-10.	1.0	1
44	Automated quantitative analysis of the shift of frequency spectra generated by attenuated signals from contrast microbubbles. Ultrasonics, 2003, 41, 75-81.	2.1	3
45	Clinical applications of strain rate imaging. Journal of the American Society of Echocardiography, 2003, 16, 1334-1342.	1.2	121
46	Strain and strain rate echocardiography. Current Opinion in Cardiology, 2002, 17, 443-454.	0.8	112
47	Time to onset of regional relaxation: feasibility, variability and utility of a novel index of regional myocardial function by strain rate imaging. Journal of the American College of Cardiology, 2002, 39, 1531-1537.	1.2	100
48	Rapid quantitative assessment of myocardial perfusion: Spectral analysis of myocardial contrast echocardiographic images. Journal of the American Society of Echocardiography, 2002, 15, 63-68.	1.2	7
49	Radio frequency dual-spectra analysis of regional myocardial perfusion: Comparison with harmonic densitometric method. Journal of the American Society of Echocardiography, 2002, 15, 1277-1284.	1.2	4
50	Epicardial ultrasound guidance of coronary catheter placement in an experimental animal model. Journal of the American Society of Echocardiography, 2002, 15, 1387-1390.	1.2	5
51	Dual-Spectra Ultrasonography. Journal of Ultrasound in Medicine, 2002, 21, 249-259.	0.8	9
52	Radiofrequency spectral analysis of attenuated ultrasound signals in experiments with echo contrast microbubbles. Journal of the American Society of Echocardiography, 2001, 14, 789-797.	1.2	10
53	Real-time strain rate echocardiographic imaging: Temporal and spatial analysis of postsystolic compression in acutely ischemic myocardium. Journal of the American Society of Echocardiography, 2001, 14, 360-369.	1.2	45
54	Myocardial Contrast Echocardiography: Texture Analysis for Identification of Nonperfused versus Perfused Myocardium. Echocardiography, 2001, 18, 665-672.	0.3	5

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55	Vibro-Acoustography: Quantification of Flow with Highly-Localized Low-Frequency Acoustic Force. Ultrasonic Imaging, 2001, 23, 249-256.	1.4	9
56	Tumor-Like Mitral Annular Calcification with Central Liquefaction. Echocardiography, 1993, 10, 459-463.	0.3	17