Christof Karmonik

List of Publications by Year
in descending order

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71	1,721	218677	302126
papers	citations	26 h-index	39 g-index

72	72	72	2585
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Tetrahedral vs. polyhedral mesh size evaluation on flow velocity and wall shear stress for cerebral hemodynamic simulation. Computer Methods in Biomechanics and Biomedical Engineering, 2011, 14, 9-22.	1.6	116
2	Quantitation and Localization of Matrix Metalloproteinases and Their Inhibitors in Human Carotid Endarterectomy Tissues. Arteriosclerosis, Thrombosis, and Vascular Biology, 2006, 26, 2351-2358.	2.4	93
3	Three-dimensional printing of anatomically accurate, patient specific intracranial aneurysm models. Journal of NeuroInterventional Surgery, 2016, 8, 517-520.	3.3	73
4	Aneurysm Volume-to-Ostium Area Ratio: A Parameter Useful for Discriminating the Rupture Status of Intracranial Aneurysms. Neurosurgery, 2011, 68, 310-318.	1.1	68
5	Computational fluid dynamics in patients with continuous-flow left ventricular assist device support show hemodynamic alterations in the ascending aorta. Journal of Thoracic and Cardiovascular Surgery, 2014, 147, 1326-1333.e1.	0.8	65
6	Functional Magnetic Resonance Imaging during Urodynamic Testing Identifies Brain Structures Initiating Micturition. Journal of Urology, 2014, 192, 1149-1154.	0.4	61
7	Multiple Aneurysms AnaTomy CHallenge 2018 (MATCH): Phase I: Segmentation. Cardiovascular Engineering and Technology, 2018, 9, 565-581.	1.6	59
8	Intra-aneurysmal flow patterns and wall shear stresses calculated with computational flow dynamics in an anterior communicating artery aneurysm depend on knowledge of patient-specific inflow rates. Acta Neurochirurgica, 2009, 151, 479-485.	1.7	57
9	Tracking regression and progression of atherosclerosis in human carotid arteries using high-resolution magnetic resonance imaging. Magnetic Resonance Imaging, 2004, 22, 1249-1258.	1.8	55
10	A Computational Fluid Dynamics Study Pre- and Post-Stent Graft Placement in an Acute Type B Aortic Dissection. Vascular and Endovascular Surgery, 2011, 45, 157-164.	0.7	53
11	Relationship Between Aneurysm Wall Enhancement in Vessel Wall Magnetic Resonance Imaging and Rupture Risk of Unruptured Intracranial Aneurysms. Neurosurgery, 2019, 84, E385-E391.	1.1	50
12	Temporal variations of wall shear stress parameters in intracranial aneurysmsâ€"importance of patient-specific inflow waveforms for CFD calculations. Acta Neurochirurgica, 2010, 152, 1391-1398.	1.7	49
13	Influence of LVAD Cannula Outflow Tract Location on Hemodynamics in the Ascending Aorta. ASAIO Journal, 2012, 58, 562-567.	1.6	46
14	Enhanced MRI relaxivity of Gd³⁺â€based contrast agents geometrically confined within porous nanoconstructs. Contrast Media and Molecular Imaging, 2012, 7, 501-508.	0.8	46
15	Functional Magnetic Resonance Imaging with Concurrent Urodynamic Testing Identifies Brain Structures Involved in Micturition Cycle in Patients with Multiple Sclerosis. Journal of Urology, 2017, 197, 438-444.	0.4	42
16	Wall Enhancement, Hemodynamics, and Morphology in Unruptured Intracranial Aneurysms with High Rupture Risk. Translational Stroke Research, 2020, 11, 882-889.	4.2	42
17	Music Listening Modulates Functional Connectivity and Information Flow in the Human Brain. Brain Connectivity, 2016, 6, 632-641.	1.7	37
18	Comparison of velocity patterns in an AComA aneurysm measured with 2D phase contrast MRI and simulated with CFD. Technology and Health Care, 2008, 16, 119-128.	1.2	36

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19	Computational Fluid Dynamics Investigation of Chronic Aortic Dissection Hemodynamics Versus Normal Aorta. Vascular and Endovascular Surgery, 2013, 47, 625-631.	0.7	35
20	Comparison of Hemodynamics in the Ascending Aorta Between Pulsatile and Continuous Flow Left Ventricular Assist Devices Using Computational Fluid Dynamics Based on Computed Tomography Images. Artificial Organs, 2014, 38, 142-148.	1.9	34
21	Morphological and Hemodynamic Discriminators for Rupture Status in Posterior Communicating Artery Aneurysms. PLoS ONE, 2016, 11, e0149906.	2.5	34
22	Clinical implications of skeletal muscle blood-oxygenation-level-dependent (BOLD) MRI. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2012, 25, 251-261.	2.0	31
23	Blood oxygenation levelâ€dependent (BOLD) MRI of human skeletal muscle at 1.5 and 3 T. Journal of Magnetic Resonance Imaging, 2012, 35, 1227-1232.	3.4	30
24	State-of-the-art aortic imaging: Part I - fundamentals and perspectives of CT and MRI. Vasa - European Journal of Vascular Medicine, 2013, 42, 395-412.	1.4	30
25	Paramagnetic Gd3+ labeled red blood cells for magnetic resonance angiography. Biomaterials, 2016, 98, 163-170.	11.4	28
26	Hemodynamic and morphological characteristics of unruptured posterior communicating artery aneurysms with oculomotor nerve palsy. Journal of Neurosurgery, 2016, 125, 264-268.	1.6	27
27	Hemodynamic Changes Caused by Multiple Stenting in Vertebral Artery Fusiform Aneurysms: A Patient-Specific Computational Fluid Dynamics Study. American Journal of Neuroradiology, 2018, 39, 118-122.	2.4	23
28	Integration of the computational fluid dynamics technique with MRI in aortic dissections. Magnetic Resonance in Medicine, 2013, 69, 1438-1442.	3.0	20
29	Combined Effects of Flow Diverting Strategies and Parent Artery Curvature on Aneurysmal Hemodynamics: A CFD Study. PLoS ONE, 2015, 10, e0138648.	2.5	20
30	Data-Driven Machine-Learning Quantifies Differences in the Voiding Initiation Network in Neurogenic Voiding Dysfunction in Women With Multiple Sclerosis. International Neurourology Journal, 2019, 23, 195-204.	1.2	20
31	ECG-triggered non-enhanced MR angiography of peripheral arteries in comparison to DSA in patients with peripheral artery occlusive disease. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2013, 26, 271-280.	2.0	19
32	A Naturally Occurring Single Amino Acid Replacement in Multiple Gene Regulator of Group A Streptococcus Significantly Increases Virulence. American Journal of Pathology, 2015, 185, 462-471.	3.8	19
33	Growth Hormone Alters Brain Morphometry, Connectivity, and Behavior in Subjects with Fatigue after Mild Traumatic Brain Injury. Journal of Neurotrauma, 2020, 37, 1052-1066.	3.4	19
34	A technique for improved quantitative characterization of intracranial aneurysms. American Journal of Neuroradiology, 2004, 25, 1158-61.	2.4	18
35	Review of Recent Results using Computational Fluid Dynamics Simulations in Patients Receiving Mechanical Assist Devices for End-Stage Heart Failure. Methodist DeBakey Cardiovascular Journal, 2021, 10, 185.	1.0	17
36	Workflow for Visualization of Neuroimaging Data with an Augmented Reality Device. Journal of Digital Imaging, 2018, 31, 26-31.	2.9	17

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37	Quantitative Segmentation of Principal Carotid Atherosclerotic Lesion Components by Feature Space Analysis Based on Multicontrast MRI at 1.5 T. IEEE Transactions on Biomedical Engineering, 2009, 56, 352-360.	4.2	14
38	Impact of tear location on hemodynamics in a type B aortic dissection investigated with computational fluid dynamics. , 2010, 2010, 3138-41.		14
39	Application of three-dimensional printing for pre-operative planning in hip preservation surgery. Journal of Hip Preservation Surgery, 2019, 6, 164-169.	1.3	14
40	Comparison of velocity patterns in an AComA aneurysm measured with 2D phase contrast MRI and simulated with CFD. Technology and Health Care, 2008, 16, 119-28.	1.2	14
41	Similarity of functional connectivity patterns in patients with multiple sclerosis who void spontaneously versus patients with voiding dysfunction. Neurourology and Urodynamics, 2019, 38, 239-247.	1.5	13
42	Computational hemodynamics in the human aorta: a computational fluid dynamics study of three cases with patient-specific geometries and inflow rates. Technology and Health Care, 2008, 16, 343-54.	1.2	13
43	Brain activation patterns of female multiple sclerosis patients with voiding dysfunction. Neurourology and Urodynamics, 2020, 39, 969-977.	1.5	12
44	Estimation of thermal dose from MR thermometry during application of nonablative pulsed high intensity focused ultrasound. Journal of Magnetic Resonance Imaging, 2012, 35, 1169-1178.	3.4	11
45	MRIâ€based prediction of pulsed highâ€intensity focused ultrasound effect on tissue transport in rabbit muscle. Journal of Magnetic Resonance Imaging, 2013, 38, 1094-1102.	3.4	10
46	Four-Dimensional Phase Contrast Magnetic Resonance Imaging Protocol Optimization Using Patient-Specific 3-Dimensional Printed Replicas for InÂVivo Imaging Before and After Flow Diverter Placement. World Neurosurgery, 2017, 105, 775-782.	1.3	10
47	Computational Fluid Dynamics As A Tool For Visualizing Hemodynamic Flow Patterns. Methodist DeBakey Cardiovascular Journal, 2009, 5, 26-33.	1.0	9
48	Toward Improving Fidelity of Computational Fluid Dynamics Simulations: Boundary Conditions Matter. American Journal of Neuroradiology, 2014, 35, 1549-1550.	2.4	9
49	Stent-assisted coiling of intracranial aneurysms aided by virtual parent artery reconstruction. American Journal of Neuroradiology, 2005, 26, 2368-70.	2.4	9
50	An image analysis pipeline for the semi-automated analysis of clinical fMRI images based on freely available software. Computers in Biology and Medicine, 2010, 40, 279-287.	7.0	8
51	Quantification of speed-up and accuracy of multi-CPU computational flow dynamics simulations of hemodynamics in a posterior communicating artery aneurysm of complex geometry. Journal of NeuroInterventional Surgery, 2013, 5, iii48-iii55.	3.3	8
52	Characterization of functional brain connectivity towards optimization of music selection for therapy: a fMRI study. International Journal of Neuroscience, 2019, 129, 882-889.	1.6	7
53	Magnetic resonance imaging as a tool to assess reliability in simulating hemodynamics in cerebral aneurysms with a dedicated computational fluid dynamics prototype: preliminary results. Cardiovascular Diagnosis and Therapy, 2014, 4, 207-12.	1.7	7
54	Fractional anisotropy asymmetry and the side of seizure origin for partial onset-temporal lobe epilepsy. Computerized Medical Imaging and Graphics, 2014, 38, 481-489.	5.8	6

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55	Development of a Severe Mitral Valve Stenosis Secondary to the Treatment of Mitral Regurgitation with a Single MitraClip. Journal of Cardiac Surgery, 2016, 31, 153-155.	0.7	6
56	Are White Matter Tract Integrities Different in Multiple Sclerosis Women With Voiding Dysfunction?. Female Pelvic Medicine and Reconstructive Surgery, 2021, 27, e101-e105.	1.1	6
57	Concurrent EEG and Functional MRI Recording and Integration Analysis for Dynamic Cortical Activity Imaging. Journal of Visualized Experiments, 2018, , .	0.3	5
58	Similarity of individual functional brain connectivity patterns formed by music listening quantified with a data-driven approach. International Journal of Computer Assisted Radiology and Surgery, 2020, 15, 703-713.	2.8	5
59	Hemodynamic assessment of partial mechanical circulatory support: data derived from computed tomography angiographic images and computational fluid dynamics. Cardiovascular Diagnosis and Therapy, 2015, 5, 160-5.	1.7	5
60	Parallel Image-Based Hemodynamic Simulator. , 2007, , .		3
61	An image processing algorithm for the in-vivo quantification and visualization of septum motion in type III B - aortic dissections with cine magnetic resonance imaging. , 2009, 2009, 4391-4.		3
62	Translational studies of pulsed HIFU enhanced tissue permeability: Mechanisms in mouse and rabbit models. , 2009, , .		2
63	Brain activation in complex partial seizures during switching from a the goal-directed task to a resting state: Comparison of fMRI maps to the default mode network. , 2010, 2010, 5685-8.		2
64	Cost function evaluation for the registration of clinical DTI images onto the ICBM DTI81 white matter atlas. Technology and Health Care, 2010, 18, 145-156.	1.2	2
65	Preliminary Analysis of Brain Footprints in Multiple Sclerosis Females With Detrusor Sphincter Dyssynergia: A Concurrent Urodynamic and Functional Magnetic Resonance Imaging Study. International Neurourology Journal, 2022, 26, S38-46.	1.2	2
66	Music to My Ears: Neural modularity and flexibility differ in response to real-world music stimuli. IBRO Neuroscience Reports, 2022, 12, 98-107.	1.6	2
67	P1â€277: Older Healthy People Have Increased Vascular Permeability in Regions Showing â€˜Offâ€Targetâ€™ [¹⁸F]AVâ€1451 UPTAKE. Alzheimer's and Dementia, 2016, 12, P523.	0.8	1
68	[ICâ€03â€“05]: NONâ€FLUENT PRIMARY PROGRESSIVE APHASIA: PRIONâ€LIKE BEHAVIOR OF MISFOLDED PROTEINS IN THE SYNTACTIC NETWORK. Alzheimer's and Dementia, 2017, 13, P10.	0.8	0
69	Hemodynamic Changes in Patient-Specific Models of Cerebral Aneurysms With and Without Virtual Flow Diverters Investigated With a Dedicated CFD Research Prototype. , 2013, , .		0
70	New horizons in cardiovascular magnetic resonance imaging. Cardiovascular Diagnosis and Therapy, 2014, 4, 54-5.	1.7	0
71	Wall Shear Stress Variations in Basilar Tip Aneurysms investigated with Computational Fluid Dynamics. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0