Christopher P Cheng

List of Publications by Year
in descending order

54 papers	1,373 citations	361296 20 h-index	345118 36 g-index
55 all docs	55 docs citations	55 times ranked	1205 citing authors

#	Article	IF	Citations
1	In Vivo MR Angiographic Quantification of Axial and Twisting Deformations of the Superficial Femoral Artery Resulting from Maximum Hip and Knee Flexion. Journal of Vascular and Interventional Radiology, 2006, 17, 979-987.	0.2	146
2	Abdominal aortic hemodynamics in young healthy adults at rest and during lower limb exercise: quantification using image-based computer modeling. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 291, H668-H676.	1.5	120
3	Quantification of Wall Shear Stress in Large Blood Vessels Using Lagrangian Interpolation Functions with Cine Phase-Contrast Magnetic Resonance Imaging. Annals of Biomedical Engineering, 2002, 30, 1020-1032.	1.3	96
4	Methods for Quantifying Three-Dimensional Deformation of Arteries due to Pulsatile and Nonpulsatile Forces: Implications for the Design of Stents and Stent Grafts. Annals of Biomedical Engineering, 2009, 37, 14-33.	1.3	87
5	Abdominal aortic hemodynamic conditions in healthy subjects aged 50â€“70 at rest and during lower limb exercise: in vivo quantification using MRI. Atherosclerosis, 2003, 168, 323-331.	0.4	79
6	Inferior vena caval hemodynamics quantified in vivo at rest and during cycling exercise using magnetic resonance imaging. American Journal of Physiology - Heart and Circulatory Physiology, 2003, 284, H1161-H1167.	1.5	73
7	The Effect of Aging on Deformations of the Superficial Femoral Artery Resulting from Hip and Knee Flexion: Potential Clinical Implications. Journal of Vascular and Interventional Radiology, 2010, 21, 195-202.	0.2	70
8	Hemodynamic Changes Quantified in Abdominal Aortic Aneurysms with Increasing Exercise Intensity Using MR Exercise Imaging and Image-Based Computational Fluid Dynamics. Annals of Biomedical Engineering, 2011, 39, 2186-2202.	1.3	70
9	Quantification of Particle Residence Time in Abdominal Aortic Aneurysms Using Magnetic Resonance Imaging and Computational Fluid Dynamics. Annals of Biomedical Engineering, 2011, 39, 864-883.	1.3	67
10	Geometry and respiratory-induced deformation of abdominal branch vessels and stents after complex endovascular aneurysm repair. Journal of Vascular Surgery, 2015, 61, 875-885.	0.6	45
11	Blood flow conditions in the proximal pulmonary arteries and vena cavae: healthy children during upright cycling exercise. American Journal of Physiology - Heart and Circulatory Physiology, 2004, 287, H921-H926.	1.5	41
12	Proximal pulmonary artery blood flow characteristics in healthy subjects measured in an upright posture using MRI: The effects of exercise and age. Journal of Magnetic Resonance Imaging, 2005, 21, 752-758.	1.9	41
13	Comparison of abdominal aortic hemodynamics between men and women at rest and during lower limb exercise. Journal of Vascular Surgery, 2003, 37, 118-123.	0.6	35
14	Right Renal Artery In Vivo Stent Fracture. Journal of Vascular and Interventional Radiology, 2008, 19, 439-442.	0.2	33
15	In Vivo Deformation of the Human Abdominal Aorta and Common Iliac Arteries With Hip and Knee Flexion:Implications for the Design of Stent-Grafts. Journal of Endovascular Therapy, 2009, 16, 531-538.	0.8	33
16	Aortic Arch Vessel Geometries and Deformations in Patients with Thoracic Aortic Aneurysms and Dissections. Journal of Vascular and Interventional Radiology, 2014, 25, 1903-1911.	0.2	29
17	Respiration-induced Deformations of the Superior Mesenteric and Renal Arteries in Patients with Abdominal Aortic Aneurysms. Journal of Vascular and Interventional Radiology, 2013, 24, 1035-1042.	0.2	26
18	Comparative geometric analysis of renal artery anatomy before and after fenestrated or snorkel/chimney endovascular aneurysm repair. Journal of Vascular Surgery, 2016, 63, 922-929.	0.6	25

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19	Relative Lung Perfusion Distribution in Normal Lung Scans: Observations and Clinical Implications. Congenital Heart Disease, 2006, 1, 210-216.	0.0	24
20	Changes in Geometry and Cardiac Deformation of the Thoracic Aorta after Thoracic Endovascular Aortic Repair. Annals of Vascular Surgery, 2018, 46, 83-89.	0.4	23
21	Dynamic exercise imaging with an MR-compatible stationary cycle within the general electric open magnet. Magnetic Resonance in Medicine, 2003, 49, 581-585.	1.9	21
22	Three-Dimensional Modeling Analysis of Visceral Arteries and Kidneys during Respiration. Annals of Vascular Surgery, 2016, 34, 250-260.	0.4	20
23	Biomechanical Response of Stented Carotid Arteries to Swallowing and Neck Motion. Journal of Endovascular Therapy, 2008, 15, 663-671.	0.8	17
24	The biomechanical impact of hip movement on iliofemoral venous anatomy and stenting for deep venous thrombosis. Journal of Vascular Surgery: Venous and Lymphatic Disorders, 2020, 8, 953-960.	0.9	16
25	Dynamic Geometric Analysis of the Renal Arteries and Aorta following Complex Endovascular Aneurysm Repair. Annals of Vascular Surgery, 2017, 43, 85-95.	0.4	13
26	Geometric Deformations of the Thoracic Aorta and Supra-Aortic Arch Branch Vessels Following Thoracic Endovascular Aortic Repair. Vascular and Endovascular Surgery, 2018, 52, 173-180.	0.3	13
27	Respiratoryâ€induced 3D deformations of the renal arteries quantified with geometric modeling during inspiration and expiration breathâ€holds of magnetic resonance angiography. Journal of Magnetic Resonance Imaging, 2013, 38, 1325-1332.	1.9	12
28	Methods for Characterizing Human Coronary Artery Deformation From Cardiac-Gated Computed Tomography Data. IEEE Transactions on Biomedical Engineering, 2014, 61, 2582-2592.	2.5	12
29	Optimization of three-dimensional modeling for geometric precision and efficiency for healthy and diseased aortas. Computer Methods in Biomechanics and Biomedical Engineering, 2018, 21, 65-74.	0.9	9
30	Influence of thoracic endovascular aortic repair on true lumen helical morphology for Stanford type B dissections. Journal of Vascular Surgery, 2021, 74, 1499-1507.e1.	0.6	9
31	Quantifying in vivo hemodynamic response to exercise in patients with intermittent claudication and abdominal aortic aneurysms using cine phaseâ€contrast MRI. Journal of Magnetic Resonance Imaging, 2010, 31, 425-429.	1.9	8
32	Thoracic aortic geometry correlates with endograft bird-beaking severity. Journal of Vascular Surgery, 2020, 72, 1196-1205.	0.6	7
33	Multiaxial pulsatile dynamics of the thoracic aorta and impact of thoracic endovascular repair. European Journal of Radiology Open, 2021, 8, 100333.	0.7	7
34	Respiratory-induced changes in renovisceral branch vessel morphology after fenestrated thoracoabdominal aneurysm repair with the BeGraft balloon-expandable covered stent. Journal of Vascular Surgery, 2021, 74, 396-403.	0.6	6
35	Stabilization of the Abdominal Aorta During the Cardiac Cycle with the Sac-Anchoring Nellix Device. Annals of Vascular Surgery, 2018, 52, 312.e7-312.e12.	0.4	5
36	Automated Quantification of Diseased Thoracic Aortic Longitudinal Centerline and Surface Curvatures. Journal of Biomechanical Engineering, 2020, 142, .	0.6	5

#	Article	IF	Citations
37	Abdominal Aortic Hemodynamics in Intermittent Claudication Patients at Rest and during Dynamic Pedaling Exercise. Annals of Vascular Surgery, 2015, 29, 1516-1523.	0.4	4
38	If You Build It, They Will Come: How to Establish an Academic Innovation Enterprise. Techniques in Vascular and Interventional Radiology, 2017, 20, 121-126.	0.4	3
39	Length Redundancy and Twist Improve the Biomechanical Properties of Polytetrafluoroethylene Bypass Grafts. Annals of Vascular Surgery, 2019, 61, 410-415.	0.4	3
40	Cardiac Pulsatilityâ€“ and Respiratory-Induced Deformations of the Renal Arteries and Snorkel Stents After Snorkel Endovascular Aneurysm Sealing. Journal of Endovascular Therapy, 2019, 26, 556-564.	0.8	3
41	Thoracic aortic parallel stent-graft behaviour when subjected to radial loading. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 118, 104407.	1.5	3
42	Quantification of motion of the thoracic aorta after ascending aortic repair of type-A dissection. International Journal of Computer Assisted Radiology and Surgery, 2017, 12, 811-819.	1.7	2
43	Geometric Modeling of Vasculature. , 2019, , 45-66.		2
44	Quantification of true lumen helical morphology and chirality in type B aortic dissections. American Journal of Physiology - Heart and Circulatory Physiology, 2021, 320, H901-H911.	1.5	2
45	Hemodynamics in Human Abdominal Aortic Aneurysms During Rest and Simulated Exercise. , 2007, , .		2
46	Quantification of In Vivo Kinematics of Superficial Femoral Artery due to Hip and Knee Flexion Using Magnetic Resonance Imaging. Journal of Medical and Biological Engineering, 2016, 36, 80-86.	1.0	1
47	Coronary Arteries and Heart. , 2019, , 87-116.		1
48	Effects of Heat Treatment on the Magnetic Properties of Nitinol Devices. Shape Memory and Superelasticity, 2019, 5, 429-435.	1.1	1
49	The Triple Wire Technique for Delivery of Endovascular Components in Difficult Anatomy. Annals of Vascular Surgery, 2021, 70, 197-201.	0.4	1
50	Methods for Quantifying Vessel Deformation Due to Pulsatile and Non-Pulsatile Forces. , 2007, , .		1
51	Impact of renal chimney intra-aortic stent length on branch and end-stent angle in chimney endovascular aneurysm repair and endovascular aneurysm sealing configurations. Vascular, 2023, 31, 234-243.	0.4	1
52	Quantifying Vascular Deformations. , 2019, , 67-84.		0
53	Thoracic Aorta and Supra-Aortic Arch Branches. , 2019, , 139-163.		0
54	Abdominal Aorta and Renovisceral Arteries. , 2019, , 165-189.		0