

# Juan R Cebral

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

120  
papers

5,184  
citations

40  
h-index

70  
g-index

135  
ext. papers

5,838  
ext. citations

4.1  
avg, IF

5.64  
L-index

#	Paper	IF	Citations
120	Regional Aneurysm Wall Enhancement is Affected by Local Hemodynamics: A 7T MRI Study. <i>American Journal of Neuroradiology</i> , <b>2021</b> , 42, 464-470	4.4	10
119	Hemodynamics in aneurysm blebs with different wall characteristics. <i>Journal of NeuroInterventional Surgery</i> , <b>2021</b> , 13, 642-646	7.8	8
118	Blebs in intracranial aneurysms: prevalence and general characteristics. <i>Journal of NeuroInterventional Surgery</i> , <b>2021</b> , 13, 226-230	7.8	4
117	Hemodynamic conditions that favor bleb formation in cerebral aneurysms. <i>Journal of NeuroInterventional Surgery</i> , <b>2021</b> , 13, 231-236	7.8	7
116	Asymptomatic carotid artery stenosis is associated with cerebral hypoperfusion. <i>Journal of Vascular Surgery</i> , <b>2021</b> , 73, 1611-1621.e2	3.5	8
115	Analysis of hemodynamic changes from aneurysm inception to large sizes. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2021</b> , 37, e3415	2.6	1
114	Evaluation of Outcome Prediction of Flow Diversion for Intracranial Aneurysms. <i>American Journal of Neuroradiology</i> , <b>2021</b> , 42, 1973-1978	4.4	0
113	Incorporating variability of patient inflow conditions into statistical models for aneurysm rupture assessment. <i>Acta Neurochirurgica</i> , <b>2020</b> , 162, 553-566	3	1
112	Mechanism of Action and Biology of Flow Diverters in the Treatment of Intracranial Aneurysms. <i>Neurosurgery</i> , <b>2020</b> , 86, S13-S19	3.2	24
111	A note on coding and standardization of categorical variables in (sparse) group lasso regression. <i>Journal of Statistical Planning and Inference</i> , <b>2020</b> , 206, 1-11	0.8	3
110	Comparison of statistical learning approaches for cerebral aneurysm rupture assessment. <i>International Journal of Computer Assisted Radiology and Surgery</i> , <b>2020</b> , 15, 141-150	3.9	15
109	Calcification in Human Intracranial Aneurysms Is Highly Prevalent and Displays Both Atherosclerotic and Nonatherosclerotic Types. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , <b>2019</b> , 39, 2157-2167	9.4	14
108	Flow-induced, inflammation-mediated arterial wall remodeling in the formation and progression of intracranial aneurysms. <i>Neurosurgical Focus</i> , <b>2019</b> , 47, E21	4.2	72
107	Image-based modeling of blood flow in cerebral aneurysms treated with intrasaccular flow diverting devices. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2019</b> , 35, e3202 <sup>2.6</sup>	2.6	7
106	Extending statistical learning for aneurysm rupture assessment to Finnish and Japanese populations using morphology, hemodynamics, and patient characteristics. <i>Neurosurgical Focus</i> , <b>2019</b> , 47, E16	4.2	7
105	Local Hemodynamic Conditions Associated with Focal Changes in the Intracranial Aneurysm Wall. <i>American Journal of Neuroradiology</i> , <b>2019</b> , 40, 510-516	4.4	33
104	Analysis of Flow Dynamics and Outcomes of Cerebral Aneurysms Treated with Intrasaccular Flow-Diverting Devices. <i>American Journal of Neuroradiology</i> , <b>2019</b> , 40, 1511-1516	4.4	6

103	Downstream vascular changes after flow-diverting device deployment in a rabbit model. <i>Journal of NeuroInterventional Surgery</i> , <b>2019</b> , 11, 523-527	7.8	5
102	Associations of hemodynamics, morphology, and patient characteristics with aneurysm rupture stratified by aneurysm location. <i>Neuroradiology</i> , <b>2019</b> , 61, 275-284	3.2	36
101	Hemodynamic characteristics of stable and unstable vertebrobasilar dolichoectatic and fusiform aneurysms. <i>Journal of NeuroInterventional Surgery</i> , <b>2018</b> , 10, 1102-1107	7.8	4
100	Combining data from multiple sources to study mechanisms of aneurysm disease: Tools and techniques. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2018</b> , 34, e3133	2.6	12
99	Development and internal validation of an aneurysm rupture probability model based on patient characteristics and aneurysm location, morphology, and hemodynamics. <i>International Journal of Computer Assisted Radiology and Surgery</i> , <b>2018</b> , 13, 1767-1779	3.9	37
98	Development of a statistical model for discrimination of rupture status in posterior communicating artery aneurysms. <i>Acta Neurochirurgica</i> , <b>2018</b> , 160, 1643-1652	3	7
97	External validation of cerebral aneurysm rupture probability model with data from two patient cohorts. <i>Acta Neurochirurgica</i> , <b>2018</b> , 160, 2425-2434	3	10
96	Identification of Hostile Hemodynamics and Geometries of Cerebral Aneurysms: A Case-Control Study. <i>American Journal of Neuroradiology</i> , <b>2018</b> , 39, 1860-1866	4.4	20
95	Multiple Aneurysms AnaTomy CHallenge 2018 (MATCH): Phase I: Segmentation. <i>Cardiovascular Engineering and Technology</i> , <b>2018</b> , 9, 565-581	2.2	35
94	Differences in Hemodynamics and Rupture Rate of Aneurysms at the Bifurcation of the Basilar and Internal Carotid Arteries. <i>American Journal of Neuroradiology</i> , <b>2017</b> , 38, 570-576	4.4	16
93	Hemodynamic differences between unstable and stable unruptured aneurysms independent of size and location: a pilot study. <i>Journal of NeuroInterventional Surgery</i> , <b>2017</b> , 9, 376-380	7.8	29
92	Understanding Angiography-Based Aneurysm Flow Fields through Comparison with Computational Fluid Dynamics. <i>American Journal of Neuroradiology</i> , <b>2017</b> , 38, 1180-1186	4.4	9
91	Concomitant coiling reduces metalloproteinase levels in flow diverter-treated aneurysms but anti-inflammatory treatment has no effect. <i>Journal of NeuroInterventional Surgery</i> , <b>2017</b> , 9, 307-310	7.8	10
90	Noninvasive characterization of carotid plaque strain. <i>Journal of Vascular Surgery</i> , <b>2017</b> , 65, 1653-1663	3.5	9
89	Hemodynamic Characteristics of Ruptured and Unruptured Multiple Aneurysms at Mirror and Ipsilateral Locations. <i>American Journal of Neuroradiology</i> , <b>2017</b> , 38, 2301-2307	4.4	18
88	. <i>American Journal of Neuroradiology</i> , <b>2017</b> , 38, E52	4.4	
87	Angioarchitectures and Hemodynamic Characteristics of Posterior Communicating Artery Aneurysms and Their Association with Rupture Status. <i>American Journal of Neuroradiology</i> , <b>2017</b> , 38, 2111-2118	4.4	13
86	Flow Conditions in the Intracranial Aneurysm Lumen Are Associated with Inflammation and Degenerative Changes of the Aneurysm Wall. <i>American Journal of Neuroradiology</i> , <b>2017</b> , 38, 119-126	4.4	102

85	Regional Mapping of Flow and Wall Characteristics of Intracranial Aneurysms. <i>Annals of Biomedical Engineering</i> , <b>2016</b> , 44, 3553-3567	4.7	26
84	Hemodynamics in growing and stable cerebral aneurysms. <i>Journal of NeuroInterventional Surgery</i> , <b>2016</b> , 8, 407-12	7.8	37
83	Relationship between aneurysm occlusion and flow diverting device oversizing in a rabbit model. <i>Journal of NeuroInterventional Surgery</i> , <b>2016</b> , 8, 94-8	7.8	12
82	Cluster Analysis of Vortical Flow in Simulations of Cerebral Aneurysm Hemodynamics. <i>IEEE Transactions on Visualization and Computer Graphics</i> , <b>2016</b> , 22, 757-66	4	27
81	Wall Apposition Is a Key Factor for Aneurysm Occlusion after Flow Diversion: A Histologic Evaluation in 41 Rabbits. <i>American Journal of Neuroradiology</i> , <b>2016</b> , 37, 2087-2091	4.4	48
80	Differential Gene Expression in Coiled versus Flow-Diverter-Treated Aneurysms: RNA Sequencing Analysis in a Rabbit Aneurysm Model. <i>American Journal of Neuroradiology</i> , <b>2016</b> , 37, 1114-21	4.4	5
79	Mechanisms Involved in the Formation of Biocompatible Lipid Polymeric Hollow Patchy Particles. <i>Langmuir</i> , <b>2015</b> , 31, 6639-48	4	4
78	Wall Mechanical Properties and Hemodynamics of Unruptured Intracranial Aneurysms. <i>American Journal of Neuroradiology</i> , <b>2015</b> , 36, 1695-703	4.4	51
77	Analysis of hemodynamics and wall mechanics at sites of cerebral aneurysm rupture. <i>Journal of NeuroInterventional Surgery</i> , <b>2015</b> , 7, 530-6	7.8	61
76	Hemodynamic analysis of fast and slow aneurysm occlusions by flow diversion in rabbits. <i>Journal of NeuroInterventional Surgery</i> , <b>2015</b> , 7, 931-5	7.8	20
75	Gene expression comparison of flow diversion and coiling in an experimental aneurysm model. <i>Journal of NeuroInterventional Surgery</i> , <b>2015</b> , 7, 926-30	7.8	8
74	Association between hemodynamic conditions and occlusion times after flow diversion in cerebral aneurysms. <i>Journal of NeuroInterventional Surgery</i> , <b>2015</b> , 7, 286-90	7.8	67
73	Diversity in the Strength and Structure of Unruptured Cerebral Aneurysms. <i>Annals of Biomedical Engineering</i> , <b>2015</b> , 43, 1502-15	4.7	58
72	Strategy for analysis of flow diverting devices based on multi-modality image-based modeling. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2014</b> , 30, 951-68	2.6	10
71	Morphometric, geographic, and territorial characterization of brain arterial trees. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2014</b> , 30, 755-66	2.6	33
70	Analysis of flow changes in side branches jailed by flow diverters in rabbit models. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2014</b> , 30, 988-99	2.6	28
69	Unsteady wall shear stress analysis from image-based computational fluid dynamic aneurysm models under Newtonian and Casson rheological models. <i>Medical and Biological Engineering and Computing</i> , <b>2014</b> , 52, 827-39	3.1	29
68	Effects of changing physiologic conditions on the in vivo quantification of hemodynamic variables in cerebral aneurysms treated with flow diverting devices. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2014</b> , 30, 135-42	2.6	18

67	Analysis of hemodynamics and aneurysm occlusion after flow-diverting treatment in rabbit models. <i>American Journal of Neuroradiology</i> , <b>2014</b> , 35, 1567-73	4.4	43
66	Hemodynamics in two tandem aneurysms treated with flow diverters. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2014</b> , 30, 517-24	2.6	7
65	Connecting curves in higher dimensions. <i>Journal of Physics A: Mathematical and Theoretical</i> , <b>2014</b> , 47, 215101	2	0
64	Digital reconstruction and morphometric analysis of human brain arterial vasculature from magnetic resonance angiography. <i>NeuroImage</i> , <b>2013</b> , 82, 170-81	7.9	60
63	Suggested connections between risk factors of intracranial aneurysms: a review. <i>Annals of Biomedical Engineering</i> , <b>2013</b> , 41, 1366-83	4.7	76
62	Wall motion and hemodynamics in intracranial aneurysms. <i>Journal of Physics: Conference Series</i> , <b>2013</b> , 477, 012004	0.3	
61	Hemodynamic differences in intracranial aneurysm blebs due to blood rheology. <i>Journal of Physics: Conference Series</i> , <b>2013</b> , 477, 012001	0.3	1
60	Cerebrovascular systems with concomitant pathologies: A computational hemodynamics study. <i>Journal of Physics: Conference Series</i> , <b>2013</b> , 477, 012003	0.3	0
59	CFD and PIV analysis of hemodynamics in a growing intracranial aneurysm. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2012</b> , 28, 214-28	2.6	50
58	Computational fluid dynamics in brain aneurysms. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2012</b> , 28, 801-8	2.6	41
57	Computational analysis of anterior communicating artery aneurysm shear stress before and after aneurysm formation. <i>Journal of Physics: Conference Series</i> , <b>2011</b> , 332, 012001	0.3	2
56	Computational Hemodynamics Framework for the Analysis of Cerebral Aneurysms. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2011</b> , 27, 822-839	2.6	58
55	Quantitative characterization of the hemodynamic environment in ruptured and unruptured brain aneurysms. <i>American Journal of Neuroradiology</i> , <b>2011</b> , 32, 145-51	4.4	307
54	Association of hemodynamic characteristics and cerebral aneurysm rupture. <i>American Journal of Neuroradiology</i> , <b>2011</b> , 32, 264-70	4.4	307
53	Aneurysm rupture following treatment with flow-diverting stents: computational hemodynamics analysis of treatment. <i>American Journal of Neuroradiology</i> , <b>2011</b> , 32, 27-33	4.4	279
52	Hemodynamics and bleb formation in intracranial aneurysms. <i>American Journal of Neuroradiology</i> , <b>2010</b> , 31, 304-10	4.4	130
51	The effect of aneurysm geometry on the intra-aneurysmal flow condition. <i>Neuroradiology</i> , <b>2010</b> , 52, 1135-41	4.4	42
50	Fast Numerical Solutions of Patient-Specific Blood Flows in 3D Arterial Systems. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2010</b> , 26, 73-85	2.6	49

49	Hemodynamic Analysis of Intracranial Aneurysms with Moving Parent Arteries: Basilar Tip Aneurysms. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2010</b> , 26, 1219-1227	2.6	24
48	Hemodynamics in a lethal basilar artery aneurysm just before its rupture. <i>American Journal of Neuroradiology</i> , <b>2009</b> , 30, 95-8	4.4	46
47	Hemodynamics in Normal Cerebral Arteries: Qualitative Comparison of 4D Phase-Contrast Magnetic Resonance and Image-Based Computational Fluid Dynamics. <i>Journal of Engineering Mathematics</i> , <b>2009</b> , 64, 367-378	1.2	54
46	Simulation of intracranial aneurysm stenting: Techniques and challenges. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2009</b> , 198, 3567-3582	5.7	71
45	Patient-specific hemodynamic analysis of small internal carotid artery-ophthalmic artery aneurysms. <i>World Neurosurgery</i> , <b>2009</b> , 72, 444-50; discussion 450		32
44	Hemodynamics and rupture of terminal cerebral aneurysms. <i>Academic Radiology</i> , <b>2009</b> , 16, 1201-7	4.3	49
43	Computational modelling of blood flow in side arterial branches after stenting of cerebral aneurysms. <i>International Journal of Computational Fluid Dynamics</i> , <b>2008</b> , 22, 669-676	1.2	27
42	Flow-area relationship in internal carotid and vertebral arteries. <i>Physiological Measurement</i> , <b>2008</b> , 29, 585-94	2.9	115
41	Simulation of Stent Deployment in Patient-Specific Cerebral Aneurysm Models for Their Hemodynamics Analysis <b>2008</b> ,		7
40	Deflated preconditioned conjugate gradient solvers for the PressurePoisson equation. <i>Journal of Computational Physics</i> , <b>2008</b> , 227, 10196-10208	4.1	32
39	Patient-specific flow analysis of brain aneurysms at a single location: comparison of hemodynamic characteristics in small aneurysms. <i>Medical and Biological Engineering and Computing</i> , <b>2008</b> , 46, 1113-20	3.1	46
38	Computational fluid dynamics of stented intracranial aneurysms using adaptive embedded unstructured grids. <i>International Journal for Numerical Methods in Fluids</i> , <b>2008</b> , 57, 475-493	1.9	74
37	Comparison of body-fitted, embedded and immersed solutions of low Reynolds-number 3-D incompressible flows. <i>International Journal for Numerical Methods in Fluids</i> , <b>2008</b> , 57, 13-30	1.9	19
36	Adaptive embedded and immersed unstructured grid techniques. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2008</b> , 197, 2173-2197	5.7	76
35	Technologies for guidance of radiofrequency ablation in the multimodality interventional suite of the future. <i>Journal of Vascular and Interventional Radiology</i> , <b>2007</b> , 18, 9-24	2.4	131
34	Parabolic recovery of boundary gradients. <i>Communications in Numerical Methods in Engineering</i> , <b>2007</b> , 24, 1611-1615		10
33	Adaptive Embedded/Immersed Unstructured Grid Techniques. <i>Archives of Computational Methods in Engineering</i> , <b>2007</b> , 14, 279-301	7.8	24
32	Combined clinical and computational information in complex cerebral aneurysms: application to mirror cerebral aneurysms <b>2007</b> ,		3

31	Hemodynamics before and after bleb formation in cerebral aneurysms <b>2007</b> ,		5
30	Hemodynamic patterns of anterior communicating artery aneurysms: a possible association with rupture <b>2007</b> ,		1
29	Comparison of Body-Fitted, Embedded and Immersed Solutions of Low Reynolds-Number Incompressible Flows <b>2007</b> ,		2
28	Computational fluid dynamics modeling of intracranial aneurysms: qualitative comparison with cerebral angiography. <i>Academic Radiology</i> , <b>2007</b> , 14, 804-13	4.3	52
27	Patient-specific computational modeling of cerebral aneurysms with multiple avenues of flow from 3D rotational angiography images. <i>Academic Radiology</i> , <b>2006</b> , 13, 811-21	4.3	71
26	Effects of parent vessel geometry on intraaneurysmal flow patterns <b>2006</b> ,		1
25	A study of the hemodynamics of anterior communicating artery aneurysms <b>2006</b> , 6143, 166		1
24	Improving the speed and accuracy of projection-type incompressible flow solvers. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2006</b> , 195, 3087-3109	5.7	29
23	CFD analysis incorporating the influence of wall motion: application to intracranial aneurysms. <i>Lecture Notes in Computer Science</i> , <b>2006</b> , 9, 438-45	0.9	52
22	Efficient simulation of blood flow past complex endovascular devices using an adaptive embedding technique. <i>IEEE Transactions on Medical Imaging</i> , <b>2005</b> , 24, 468-76	11.7	104
21	Efficient pipeline for image-based patient-specific analysis of cerebral aneurysm hemodynamics: technique and sensitivity. <i>IEEE Transactions on Medical Imaging</i> , <b>2005</b> , 24, 457-67	11.7	408
20	Computational modeling of cerebral aneurysms in arterial networks reconstructed from multiple 3D rotational angiography images <b>2005</b> , 5746, 233		3
19	Simulation of endovascular interventions of cerebral aneurysms: techniques and evaluation <b>2005</b> ,		1
18	Characterization of cerebral aneurysms for assessing risk of rupture by using patient-specific computational hemodynamics models. <i>American Journal of Neuroradiology</i> , <b>2005</b> , 26, 2550-9	4.4	407
17	Characterization of shear stress on the wall of the carotid artery using magnetic resonance imaging and computational fluid dynamics. <i>Studies in Health Technology and Informatics</i> , <b>2005</b> , 113, 412-42	0.5	17
16	Estimation of the differential pressure at renal artery stenoses. <i>Magnetic Resonance in Medicine</i> , <b>2004</b> , 51, 969-77	4.4	36
15	Tracheal and central bronchial aerodynamics using virtual bronchoscopy and computational fluid dynamics. <i>IEEE Transactions on Medical Imaging</i> , <b>2004</b> , 23, 1021-33	11.7	50
14	Multimodality image-based models of carotid artery hemodynamics (Cum Laude Poster Award) <b>2004</b> ,		3



13	Subject-specific modeling of intracranial aneurysms <b>2004</b> ,		9
12	Blood-flow models of the circle of Willis from magnetic resonance data. <i>Journal of Engineering Mathematics</i> , <b>2003</b> , 47, 369-386	1.2	72
11	Applications of patient-specific CFD in medicine and life sciences. <i>International Journal for Numerical Methods in Fluids</i> , <b>2003</b> , 43, 637-650	1.9	22
10	Estimation of bolus dispersion effects in perfusion MRI using image-based computational fluid dynamics. <i>NeuroImage</i> , <b>2003</b> , 19, 341-53	7.9	89
9	Improving the Speed and Accuracy of Projection-Type Incompressible Flow Solvers <b>2003</b> ,		8
8	Finite element modeling of the Circle of Willis from magnetic resonance data <b>2003</b> ,		2
7	A feature-preserving volumetric technique to merge surface triangulations. <i>International Journal for Numerical Methods in Engineering</i> , <b>2002</b> , 55, 177-190	2.4	5
6	Image-based finite element modeling of hemodynamics in stenosed carotid artery <b>2002</b> , 4683, 297		5
5	Blood flow modeling in carotid arteries with computational fluid dynamics and MR imaging. <i>Academic Radiology</i> , <b>2002</b> , 9, 1286-99	4.3	117
4	From medical images to anatomically accurate finite element grids. <i>International Journal for Numerical Methods in Engineering</i> , <b>2001</b> , 51, 985-1008	2.4	111
3	Merging of intersecting triangulations for finite element modeling. <i>Journal of Biomechanics</i> , <b>2001</b> , 34, 815-9	2.9	52
2	Advances in FEFLO <b>2001</b> ,		13
1	Patient-Specific Simulation of Carotid Artery Stenting Using Computational Fluid Dynamics. <i>Lecture Notes in Computer Science</i> , <b>2001</b> , 153-160	0.9	10