Guilherme J M Garcia

List of Publications by Year
in descending order

69 papers	2,540 citations	172386 29 h-index	206029 48 g-index
69 all docs	69 docs citations	69 times ranked	1855 citing authors

#	Article	IF	Citations
1	Atrophic rhinitis: a CFD study of air conditioning in the nasal cavity. Journal of Applied Physiology, 2007, 103, 1082-1092.	1.2	184
2	A Systematic Review of Patient-Reported Nasal Obstruction Scores. JAMA Facial Plastic Surgery, 2014, 16, 219-225.	2.2	160
3	Olfactory deposition of inhaled nanoparticles in humans. Inhalation Toxicology, 2015, 27, 394-403.	0.8	125
4	Effects of surface smoothness on inertial particle deposition in human nasal models. Journal of Aerosol Science, 2011, 42, 52-63.	1.8	122
5	Septal Deviation and Nasal Resistance: An Investigation using Virtual Surgery and Computational Fluid Dynamics. American Journal of Rhinology and Allergy, 2010, 24, e46-e53.	1.0	120
6	Interindividual Variability in Nasal Filtration as a Function of Nasal Cavity Geometry. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2009, 22, 139-156.	0.7	100
7	Perception of Better Nasal Patency Correlates with Increased Mucosal Cooling after Surgery for Nasal Obstruction. Otolaryngology - Head and Neck Surgery, 2014, 150, 139-147.	1.1	99
8	Changes in nasal airflow and heat transfer correlate with symptom improvement after surgery for nasal obstruction. Journal of Biomechanics, 2013, 46, 2634-2643.	0.9	97
9	Dosimetry of nasal uptake of water-soluble and reactive gases: A first study of interhuman variability. Inhalation Toxicology, 2009, 21, 607-618.	0.8	83
10	LVAD Outflow Graft Angle and Thrombosis Risk. ASAIO Journal, 2017, 63, 14-23.	0.9	67
11	Toward Personalized Nasal Surgery Using Computational Fluid Dynamics. Archives of Facial Plastic Surgery, 2011, 13, 305.	0.8	65
12	Impact of Middle versus Inferior Total Turbinectomy on Nasal Aerodynamics. Otolaryngology - Head and Neck Surgery, 2016, 155, 518-525.	1.1	64
13	Objective Measures in Aesthetic and Functional Nasal Surgery: Perspectives on Nasal Form and Function. Facial Plastic Surgery, 2010, 26, 320-327.	0.5	59
14	Allometric scaling laws of metabolism. Physics of Life Reviews, 2006, 3, 229-261.	1.5	58
15	Computed nasal resistance compared with patient-reported symptoms in surgically treated nasal airway passages: A preliminary report. American Journal of Rhinology and Allergy, 2012, 26, 94-98.	1.0	58
16	Deposition of inhaled nanoparticles in the rat nasal passages: Dose to the olfactory region. Inhalation Toxicology, 2009, 21, 1165-1175.	0.8	57
17	Correlation between Subjective Nasal Patency and Intranasal Airflow Distribution. Otolaryngology - Head and Neck Surgery, 2017, 156, 741-750.	1.1	53
18	Numerical evaluation of spray position for improved nasal drug delivery. Scientific Reports, 2020, 10, 10568.	1.6	51

#	ARTICLE	IF	CITATIONS
19	Normative ranges of nasal airflow variables in healthy adults. International Journal of Computer Assisted Radiology and Surgery, 2020, 15, 87-98.	1.7	48
20	Simulating the Nasal Cycle with Computational Fluid Dynamics. Otolaryngology - Head and Neck Surgery, 2015, 152, 353-360.	1.1	47
21	The relationship between nasal resistance to airflow and the airspace minimal cross-sectional area. Journal of Biomechanics, 2016, 49, 1670-1678.	0.9	45
22	Predicting Postsurgery Nasal Physiology with Computational Modeling: Current Challenges and Limitations. Otolaryngology - Head and Neck Surgery, 2014, 151, 751-759.	1.1	39
23	Identifying patients who may benefit from inferior turbinate reduction using computer simulations. Laryngoscope, 2015, 125, 2635-2641.	1.1	38
24	Correlation of Nasal Mucosal Temperature With Subjective Nasal Patency in Healthy Individuals. JAMA Facial Plastic Surgery, 2017, 19, 46-52.	2.2	37
25	On the scaling of mammalian long bones. Journal of Experimental Biology, 2004, 207, 1577-1584.	0.8	36
26	A computational fluid dynamics approach to assess interhuman variability in hydrogen sulfide nasal dosimetry. Inhalation Toxicology, 2010, 22, 277-286.	0.8	34
27	Toward Personalized Nasal Surgery Using Computational Fluid Dynamics. Archives of Facial Plastic Surgery, 2011, 13, 305-310.	0.8	33
28	Virtual Surgery for the Nasal Airway. JAMA Facial Plastic Surgery, 2018, 20, 63-69.	2.2	32
29	Ideal Particle Sizes for Inhaled Steroids Targeting Vocal Granulomas: Preliminary Study Using Computational Fluid Dynamics. Otolaryngology - Head and Neck Surgery, 2018, 158, 511-519.	1.1	32
30	Virtual septoplasty: a method to predict surgical outcomes for patients with nasal airway obstruction. International Journal of Computer Assisted Radiology and Surgery, 2020, 15, 725-735.	1.7	32
31	Estimates of nasal airflow at the nasal cycle mid-point improve the correlation between objective and subjective measures of nasal patency. Respiratory Physiology and Neurobiology, 2017, 238, 23-32.	0.7	31
32	Sensitivity of nasal airflow variables computed via computational fluid dynamics to the computed tomography segmentation threshold. PLoS ONE, 2018, 13, e0207178.	1.1	31
33	Interspecific allometry of bone dimensions: A review of the theoretical models. Physics of Life Reviews, 2006, 3, 188-209.	1.5	29
34	Three-Dimensional Mapping of Ozone-Induced Injury in the Nasal Airways of Monkeys Using Magnetic Resonance Imaging and Morphometric Techniques. Toxicologic Pathology, 2007, 35, 27-40.	0.9	28
35	Impact of LVAD Implantation Site on Ventricular Blood Stagnation. ASAIO Journal, 2017, 63, 392-400.	0.9	28
36	Relationship between degree of obstruction and airflow limitation in subglottic stenosis. Laryngoscope, 2018, 128, 1551-1557.	1.1	27

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37	A hierarchical stepwise approach to evaluate nasal patency after virtual surgery for nasal airway obstruction. Clinical Biomechanics, 2019, 61, 172-180.	0.5	26
38	Upper airway reconstruction using long‑range optical coherence tomography: Effects of airway curvature on airflow resistance. Lasers in Surgery and Medicine, 2019, 51, 150-160.	1.1	24
39	Large eddy simulations of airflow and particle deposition in pulsating bi-directional nasal drug delivery. Physics of Fluids, 2020, 32, .	1.6	24
40	Biophysical Model of Ion Transport across Human Respiratory Epithelia Allows Quantification of Ion Permeabilities. Biophysical Journal, 2013, 104, 716-726.	0.2	20
41	Creation of an idealized nasopharynx geometry for accurate computational fluid dynamics simulations of nasal airflow in patient‑specific models lacking the nasopharynx anatomy. International Journal for Numerical Methods in Biomedical Engineering, 2017, 33, e2825.	1.0	20
42	Airflow limitation in a collapsible model of the human pharynx: physical mechanisms studied with fluid‑structure interaction simulations and experiments. Physiological Reports, 2019, 7, e14099.	0.7	16
43	Rhinomanometry Versus Computational Fluid Dynamics: Correlated, but Different Techniques. American Journal of Rhinology and Allergy, 2021, 35, 245-255.	1.0	16
44	Long-bone allometry of terrestrial mammals and the geometric-shape and elastic-force constraints of bone evolution. Journal of Theoretical Biology, 2003, 224, 551-556.	0.8	13
45	The N-terminal Domain Allosterically Regulates Cleavage and Activation of the Epithelial Sodium Channel. Journal of Biological Chemistry, 2014, 289, 23029-23042.	1.6	12
46	A mechanochemical model for auto-regulation of lung airway surface layer volume. Journal of Theoretical Biology, 2013, 325, 42-51.	0.8	11
47	Advances in Technology for Functional Rhinoplasty. Facial Plastic Surgery Clinics of North America, 2017, 25, 263-270.	0.9	10
48	Novel Radiographic Assessment of the Cribriform Plate. American Journal of Rhinology and Allergy, 2018, 32, 175-180.	1.0	10
49	Clinical Importance of Nasal Air Conditioning: A Review of the Literature. American Journal of Rhinology and Allergy, 2019, 33, 763-769.	1.0	10
50	The scaling of maximum and basal metabolic rates of mammals and birds. Physica A: Statistical Mechanics and Its Applications, 2006, 359, 547-554.	1.2	9
51	Computational Model for the Regulation of Extracellular ATP and Adenosine in Airway Epithelia. Sub-Cellular Biochemistry, 2011, 55, 51-74.	1.0	9
52	Asymmetric dynamics and critical behavior in the Bak‑Sneppen model. Physica A: Statistical Mechanics and Its Applications, 2004, 342, 516-528.	1.2	8
53	Narrowed Posterior Nasal Airway Limits Efficacy of Anterior Septoplasty. Facial Plastic Surgery and Aesthetic Medicine, 2021, 23, 13-20.	0.5	6
54	Effect of tube length on the buckling pressure of collapsible tubes. Computers in Biology and Medicine, 2021, 136, 104693.	3.9	6

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55	On singular probability densities generated by extremal dynamics. Physica A: Statistical Mechanics and Its Applications, 2004, 332, 318-336.	1.2	5
56	On the thresholds, probability densities, and critical exponents of Bak–Sneppen-like models. Physica A: Statistical Mechanics and Its Applications, 2004, 342, 164-170.	1.2	5
57	Radiologic changes in the aging nasal cavity. Rhinology, 2019, 57, 0-0.	0.7	5
58	Response to Dr Chung's Question on Simulating the Nasal Cycle with Computational Fluid Dynamics. Otolaryngology - Head and Neck Surgery, 2015, 153, 308-309.	1.1	4
59	The collapsing anatomical structure is not always the primary site of flow limitation in obstructive sleep apnea. Journal of Clinical Sleep Medicine, 2020, 16, 345-346.	1.4	4
60	Clinical Implications of Nasal Airflow Simulations. Biological and Medical Physics Series, 2021, , 157-192.	0.3	4
61	Absorbing-state phase transitions with extremal dynamics. Physical Review E, 2005, 71, 066113.	0.8	3
62	Visualization of nasal airflow patterns in a patient affected with atrophic rhinitis using particle image velocimetry. Journal of Physics: Conference Series, 2007, 85, 012032.	0.3	3
63	Effects of airway surface liquid height on the kinetics of extracellular nucleotides in airway epithelia. Journal of Theoretical Biology, 2014, 363, 427-435.	0.8	3
64	Toward automatic atlas-based surgical planning for septoplasty. International Journal of Computer Assisted Radiology and Surgery, 2022, 17, 403-411.	1.7	2
65	In reference to *Regional peak mucosal cooling predicts the perception of nasal patency*. Laryngoscope, 2014, 124, E210.	1.1	1
66	Simulating Airway Collapse in Obstructive Sleep Apnea Using Fluid-Structure Interaction Methodologies. , 2018, , .		1
67	lapdMouse: a data archive for advancing computational models of inhaled aerosol dosimetry. Journal of Applied Physiology, 2020, 128, 307-308.	1.2	1
68	0738 Clinical and Physiological Relevance of Computational Studies of Obstructive Sleep Apnea: A Systematic Literature Review. Sleep, 2022, 45, A322-A322.	0.6	0
69	0740 Correlation of Pharyngeal Critical Pressure with Upper Airway Anatomy in Obstructive Sleep Apnea: A Systematic Review. Sleep, 2022, 45, A323-A323.	0.6	0