Daniel R Einstein

List of Publications by Year in Descending Order

44 papers	1,068 citations	20 h-index	32 g-index
44 ext. papers	1,153 ext. citations	3.3 avg, IF	3.92 L-index

#	Paper	IF	Citations
44	Fluid-Structure Interaction Analysis of Subject-Specific Mitral Valve Regurgitation Treatment with an Intra-Valvular Spacer. *Prosthesis*, **2020**, 2, 65-75	4.7	7
43	Effect of Edge-to-Edge Mitral Valve Repair on Chordal Strain: Fluid-Structure Interaction Simulations. *Biology*, **2020**, 9,	4.9	8
42	Fluid-structure interaction and structural analyses using a comprehensive mitral valve model with 3D chordal structure. *International Journal for Numerical Methods in Biomedical Engineering*, **2017**, 33, e2815	2.6	28
41	Fluid-Structure Interaction Analysis of Ruptured Mitral Chordae Tendineae. *Annals of Biomedical Engineering*, **2017**, 45, 619-631	4.7	16
40	Fluid-Structure Interaction Analysis of Papillary Muscle Forces Using a Comprehensive Mitral Valve Model with 3D Chordal Structure. *Annals of Biomedical Engineering*, **2016**, 44, 942-53	4.7	43
39	Comparison of realistic and idealized breathing patterns in computational models of airflow and vapor dosimetry in the rodent upper respiratory tract. *Inhalation Toxicology*, **2016**, 28, 192-202	2.7	3
38	Development of a Zealand white rabbit deposition model to study inhalation anthrax. *Inhalation Toxicology*, **2016**, 28, 80-8	2.7	6
37	Modeling particle deposition in the pig respiratory tract. *Journal of Aerosol Science*, **2016**, 99, 107-124	4.3	11
36	High-resolution subject-specific mitral valve imaging and modeling: experimental and computational methods. *Biomechanics and Modeling in Mechanobiology*, **2016**, 15, 1619-1630	3.8	22
35	Comparison of CT-derived ventilation maps with deposition patterns of inhaled microspheres in rats. *Experimental Lung Research*, **2015**, 41, 135-45	2.3	8
34	Comparative Risks of Aldehyde Constituents in Cigarette Smoke Using Transient Computational Fluid Dynamics/Physiologically Based Pharmacokinetic Models of the Rat and Human Respiratory Tracts. *Toxicological Sciences*, **2015**, 146, 65-88	4.4	36
33	Surface remeshing with robust high-order reconstruction. *Engineering With Computers*, **2014**, 30, 487-502	1.5	5
32	Respiratory tract lung geometry and dosimetry model for male Sprague-Dawley rats. *Inhalation Toxicology*, **2014**, 26, 524-44	2.7	15
31	An efficient algorithm for mapping imaging data to 3D unstructured grids in computational biomechanics. *International Journal for Numerical Methods in Biomedical Engineering*, **2013**, 29, 1-16	2.6	1
30	In situ casting and imaging of the rat airway tree for accurate 3D reconstruction. *Experimental Lung Research*, **2013**, 39, 249-57	2.3	8
29	An Implicit Elastic Theory for Lung Parenchyma. *International Journal of Engineering Science*, **2013**, 62, 31-47	5.7	35
28	Dynamic multiscale boundary conditions for 4D CT of healthy and emphysematous rats. *PLoS ONE*, **2013**, 8, e65874	3.7	11

27	Phase-contrast MRI and CFD modeling of apparent ^{3}He gas flow in rat pulmonary airways. *Journal of Magnetic Resonance*, **2012**, 221, 129-38	3	21
26	Branch-based model for the diameters of the pulmonary airways: accounting for departures from self-consistency and registration errors. *Anatomical Record*, **2012**, 295, 1027-44	2.1	2
25	Hypo-elastic model for lung parenchyma. *Biomechanics and Modeling in Mechanobiology*, **2012**, 11, 557-73	3.8	16
24	Development of a rhesus monkey lung geometry model and application to particle deposition in comparison to humans. *Inhalation Toxicology*, **2012**, 24, 869-99	2.7	31
23	Comparative computational modeling of airflows and vapor dosimetry in the respiratory tracts of rat, monkey, and human. *Toxicological Sciences*, **2012**, 128, 500-16	4.4	110
22	A multiscale bidirectional coupling framework. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2011**, 2011, 2414-7	0.9	1
21	LOCAL ORTHOGONAL CUTTING METHOD FOR COMPUTING MEDIAL CURVES AND ITS BIOMEDICAL APPLICATIONS. *SIAM Journal of Scientific Computing*, **2010**, 32, 947-969	2.6	6
20	Adaptive generation of multimaterial grids from imaging data for biomedical Lagrangian fluid-structure simulations. *Biomechanics and Modeling in Mechanobiology*, **2010**, 9, 187-201	3.8	13
19	Hypoelastic Soft Tissues: Part II: In-Plane Biaxial Experiments. *Acta Mechanica*, **2010**, 213, 205-222	2.1	16
18	Fluid-Structure Interactions of the Mitral Valve and Left Heart: Comprehensive Strategies, Past, Present and Future. *International Journal for Numerical Methods in Biomedical Engineering*, **2010**, 26, 348-380	2.6	53
17	High resolution lung airway cast segmentation with proper topology suitable for computational fluid dynamic simulations. *Computerized Medical Imaging and Graphics*, **2010**, 34, 572-8	7.6	28
16	Vascular Geometry Reconstruction and Grid Generation **2010**, 103-119		
15	A computationally efficient formal optimization of regional myocardial contractility in a sheep with left ventricular aneurysm. *Journal of Biomechanical Engineering*, **2009**, 131, 111001	2.1	68
14	Variational Generation of Prismatic Boundary-Layer Meshes for Biomedical Computing. *International Journal for Numerical Methods in Engineering*, **2009**, 79, 907-945	2.4	32
13	Automatic identification and truncation of boundary outlets in complex imaging-derived biomedical geometries. *Medical and Biological Engineering and Computing*, **2009**, 47, 989-99	3.1	10
12	An anisotropic scale-invariant unstructured mesh generator suitable for volumetric imaging data. *Journal of Computational Physics*, **2009**, 228, 619-640	4.1	27
11	Percutaneous mitral valve dilatation: single balloon versus double balloon. A finite element study. *Journal of Heart Valve Disease*, **2009**, 18, 28-34		15
10	Characterization of the highly nonlinear and anisotropic vascular tissues from experimental inflation data: a validation study toward the use of clinical data for in-vivo modeling and analysis. *Annals of Biomedical Engineering*, **2008**, 36, 1668-80	4.7	10

9	An automated self-similarity analysis of the pulmonary tree of the Sprague-Dawley rat. *Anatomical Record*, **2008**, 291, 1628-48	2.1	17
8	MR imaging of apparent 3He gas transport in narrow pipes and rodent airways. *Journal of Magnetic Resonance*, **2008**, 194, 182-91	3	8
7	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	2.1	26
6	Application of magnetic resonance (MR) imaging for the development and validation of computational fluid dynamic (CFD) models of the rat respiratory system. *Inhalation Toxicology*, **2006**, 18, 787-94	2.7	32
5	The relationship of normal and abnormal microstructural proliferation to the mitral valve closure sound. *Journal of Biomechanical Engineering*, **2005**, 127, 134-47	2.1	34
4	Inverse parameter fitting of biological tissues: a response surface approach. *Annals of Biomedical Engineering*, **2005**, 33, 1819-30	4.7	22
3	Invariant formulation for dispersed transverse isotropy in aortic heart valves: an efficient means for modeling fiber splay. *Biomechanics and Modeling in Mechanobiology*, **2005**, 4, 100-17	3.8	106
2	Non-linear fluid-coupled computational model of the mitral valve. *Journal of Heart Valve Disease*, **2005**, 14, 376-85		42
1	A coupled fluid-structure finite element model of the aortic valve and root. *Journal of Heart Valve Disease*, **2003**, 12, 781-9		59