## Ridha Hambli

## 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.

75	1,591	24	37
papers	citations	h-index	g-index
77	1,756 ext. citations	3.3	5.38
ext. papers		avg, IF	L-index

#	Paper	IF	Citations
<i>75</i>	Multiscale approach incorporating tropocollagen scale to assess the effect of molecular age-related modifications on elastic constants of cortical bone based on finite element and homogenization methods <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2022</b> , 128, 10513	4.1 30	O
74	Prediction of proximal femur fracture risk from DXA images based on novel fracture indexes. <i>Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization</i> , <b>2021</b> , 9, 205-2	:16 <sup>9</sup>	O
73	Mesh-independent damage model for trabecular bone fracture simulation and experimental validation. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2021</b> , 37, e3468	2.6	
72	Parametric investigation of the effects of load level on fatigue crack growth in trabecular bone based on artificial neural network computation. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , <b>2020</b> , 234, 784-793	1.7	3
71	Numerical modeling of the effects hydration and number of hydrogen bonds on the mechanical properties of the tropocollagen molecule. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , <b>2020</b> , 234, 299-306	1.7	2
70	On dynamic behavior of bone: Experimental and numerical study of porcine ribs subjected to impact loads in dynamic three-point bending tests. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2019</b> , 98, 336-347	4.1	6
69	Using 3D digital image correlation to visualise the progress of failure of human proximal femur. Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization, 2017, 5, 233-2	.40 <sup>9</sup>	1
68	Using visual image measurements to validate a novel finite element model of crack propagation and fracture patterns of proximal femur. <i>Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization</i> , <b>2017</b> , 5, 251-262	0.9	7
67	New three-dimensional model based on finite element method of bone nanostructure: single TC molecule scale level. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , <b>2017</b> , 20, 617-625	2.1	5
66	Age and gender effects on bone mass density variation: finite elements simulation. <i>Biomechanics and Modeling in Mechanobiology</i> , <b>2017</b> , 16, 521-535	3.8	11
65	Finite element prediction of fatigue damage growth in cancellous bone. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , <b>2016</b> , 19, 563-70	2.1	6
64	Mechanical assessment of trabecular bone stiffness using hybrid skeleton and finite element analysis. <i>Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization</i> , <b>2016</b> , 4, 352-359	0.9	2
63	Osteoporosis drug effects on cortical and trabecular bone microstructure: a review of HR-pQCT analyses. <i>BoneKEy Reports</i> , <b>2016</b> , 5, 836		25
62	A multiscale modelling of bone ultrastructure elastic proprieties using finite elements simulation and neural network method. <i>Computer Methods and Programs in Biomedicine</i> , <b>2016</b> , 134, 69-78	6.9	15
61	Prediction of denosumab effects on bone remodeling: A combined pharmacokinetics and finite element modeling. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2016</b> , 60, 492-504	4.1	19
60	Effect of material and structural factors on fracture behaviour of mineralised collagen microfibril using finite element simulation. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , <b>2015</b> , 18, 1181-1190	2.1	15
59	A theory for internal bone remodeling based on interstitial fluid velocity stimulus function. <i>Applied Mathematical Modelling</i> , <b>2015</b> , 39, 3525-3534	4.5	11

## (2011-2015)

58	A theory for bone resorption based on the local rupture of osteocytes cells connections: A finite element study. <i>Mathematical Biosciences</i> , <b>2015</b> , 262, 46-55	3.9	5	
57	Nanomechanical properties of mineralised collagen microfibrils based on finite elements method: biomechanical role of cross-links. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , <b>2014</b> , 17, 1590-601	2.1	22	
56	Multiscale approach including microfibril scale to assess elastic constants of cortical bone based on neural network computation and homogenization method. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2014</b> , 30, 318-38	2.6	27	
55	Connecting mechanics and bone cell activities in the bone remodeling process: an integrated finite element modeling. <i>Frontiers in Bioengineering and Biotechnology</i> , <b>2014</b> , 2, 6	5.8	39	
54	3D finite element simulation of human proximal femoral fracture under quasi-static load. <i>Advances in Biomechanics and Applications</i> , <b>2014</b> , 1, 1-14		8	
53	A robust 3D finite element simulation of human proximal femur progressive fracture under stance load with experimental validation. <i>Annals of Biomedical Engineering</i> , <b>2013</b> , 41, 2515-27	4.7	46	
52	A quasi-brittle continuum damage finite element model of the human proximal femur based on element deletion. <i>Medical and Biological Engineering and Computing</i> , <b>2013</b> , 51, 219-31	3.1	55	
51	Application of neural network model for the prediction of chromium concentration in phytoremediated contaminated soils. <i>Journal of Geochemical Exploration</i> , <b>2013</b> , 128, 25-34	3.8	13	
50	Neural network and Monte Carlo simulation approach to investigate variability of copper concentration in phytoremediated contaminated soils. <i>Journal of Environmental Management</i> , <b>2013</b> , 129, 134-42	7.9	15	
49	Finite element prediction with experimental validation of damage distribution in single trabeculae during three-point bending tests. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2013</b> , 27, 94-106	4.1	35	
48	Micro-CT finite element model and experimental validation of trabecular bone damage and fracture. <i>Bone</i> , <b>2013</b> , 56, 363-74	4.7	87	
47	Integrated remodeling-to-fracture finite element model of human proximal femur behavior.  Journal of the Mechanical Behavior of Biomedical Materials, 2013, 17, 89-106	4.1	22	
46	Application of Neural Network and Finite Element Method for Multiscale Prediction of Bone Fatigue Crack Growth in Cancellous Bone. <i>Studies in Mechanobiology, Tissue Engineering and Biomaterials</i> , <b>2013</b> , 3-30	0.5	3	
45	Physically based 3D finite element model of a single mineralized collagen microfibril. <i>Journal of Theoretical Biology</i> , <b>2012</b> , 301, 28-41	2.3	40	
44	Finite element prediction of proximal femur fracture pattern based on orthotropic behaviour law coupled to quasi-brittle damage. <i>Medical Engineering and Physics</i> , <b>2012</b> , 34, 202-10	2.4	50	
43	Physiologically based mathematical model of transduction of mechanobiological signals by osteocytes. <i>Biomechanics and Modeling in Mechanobiology</i> , <b>2012</b> , 11, 83-93	3.8	18	
42	Multiscale methodology for bone remodelling simulation using coupled finite element and neural network computation. <i>Biomechanics and Modeling in Mechanobiology</i> , <b>2011</b> , 10, 133-45	3.8	73	
41	Apparent damage accumulation in cancellous bone using neural networks. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2011</b> , 4, 868-78	4.1	52	

40	Numerical procedure for multiscale bone adaptation prediction based on neural networks and finite element simulation. <i>Finite Elements in Analysis and Design</i> , <b>2011</b> , 47, 835-842	2.2	35
39	Multiscale prediction of crack density and crack length accumulation in trabecular bone based on neural networks and finite element simulation. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2011</b> , 27, 461-475	2.6	27
38	Modeling of biological doses and mechanical effects on bone transduction. <i>Journal of Theoretical Biology</i> , <b>2011</b> , 274, 36-42	2.3	15
37	Parameter identification of an elasto-plastic behaviour using artificial neural networksgenetic algorithm method. <i>Materials &amp; Design</i> , <b>2011</b> , 32, 48-53		42
36	Failure of Mineralized Collagen Microfibrils Using Finite Element Simulation Coupled to Mechanical Quasi-brittle Damage. <i>Procedia Engineering</i> , <b>2011</b> , 10, 3185-3190		23
35	Finite element 3D modeling of mechanical behavior of mineralized collagen microfibrils. <i>Journal of Applied Biomaterials and Biomechanics</i> , <b>2011</b> , 9, 199-205		11
34	Application of neural networks and finite element computation for multiscale simulation of bone remodeling. <i>Journal of Biomechanical Engineering</i> , <b>2010</b> , 132, 114502	2.1	27
33	Bayesian Estimation of Degradation Model Defined by a Wiener Process <b>2010</b> , 345-357		3
32	An optimization strategy based on a metamodel applied for the prediction of the initial blank shape in a deep drawing process. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2010</b> , 50, 93-	100 <sup>3.2</sup>	17
31	Optimization of springback in L-bending process using a coupled Abaqus/Python algorithm. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2009</b> , 44, 61-67	3.2	14
30	Finite element prediction of blanking tool cost caused by wear. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2009</b> , 44, 648-656	3.2	13
29	Straindamage coupled algorithm for cancellous bone mechano-regulation with spatial function influence. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2009</b> , 198, 2673-2682	5.7	21
28	Statistical damage analysis of extrusion processes using finite element method and neural networks simulation. <i>Finite Elements in Analysis and Design</i> , <b>2009</b> , 45, 640-649	2.2	25
27	Bayesian method approach for fatigue life distribution estimation of rubber components. <i>International Journal of Product Development</i> , <b>2009</b> , 7, 199	0.7	1
26	Estimation de durês de vie de systènes mêaniques complexes par essais accles. <i>Mecanique Et Industries</i> , <b>2008</b> , 9, 497-505		
25	Metal flow prediction during sheet-metal punching process using the finite element method. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2007</b> , 33, 1106-1113	3.2	5
24	Lifetime Distribution Estimation of Boot Seals in Automotive Applications by Bayesian Method. Journal of Mechanical Design, Transactions of the ASME, 2007, 129, 275-282	3	2
23	Real-time deformation of structure using finite element and neural networks in virtual reality applications. <i>Finite Elements in Analysis and Design</i> , <b>2006</b> , 42, 985-991	2.2	57

## (2001-2006)

22	A new procedure using the microhardness technique for sheet material damage characterisation. Journal of Materials Processing Technology, <b>2006</b> , 178, 111-118	5.3	29
21	Explicit analysis of superplastic forming by the FEM including a pressure cycle control algorithm. <i>International Journal of Materials and Product Technology</i> , <b>2005</b> , 22, 299	1	2
20	Ductile damage variation analysis during metal extrusion process using design of experiment technique. <i>International Journal of Vehicle Design</i> , <b>2005</b> , 39, 51	2.4	
19	A NEW RESPONSE SURFACE METHOD FOR MANUFACTURING PROCESS OPTIMIZATION USING INTERVAL COMPUTATION. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2005</b> , 38, 253-258		О
18	Application of response surface method for FEM bending analysis. <i>International Journal of Vehicle Design</i> , <b>2005</b> , 39, 1	2.4	3
17	Optimisation of springback in bending processes using FEM simulation and response surface method. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2005</b> , 27, 40-47	3.2	24
16	Comparison between Gurson and Lemaitre damage models in wiping die bending processes. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2004</b> , 23, 451-461	3.2	12
15	Finite element damage modeling in bending processes. <i>Journal of Materials Processing Technology</i> , <b>2004</b> , 147, 302-310	5.3	11
14	Prediction of optimum clearance in blanking processes using neural network simulation. <i>International Journal of Materials and Product Technology</i> , <b>2004</b> , 20, 150	1	
13	Tool Life Prediction in Metal Forming Processes Using Numerical Analysis. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2004</b> , 37, 287-291		2
12	Application of a neural network for optimum clearance prediction in sheet metal blanking processes. <i>Finite Elements in Analysis and Design</i> , <b>2003</b> , 39, 1039-1052	2.2	22
11	BLANKSOFT: a code for sheet metal blanking processes optimization. <i>Journal of Materials Processing Technology</i> , <b>2003</b> , 141, 234-242	5.3	15
10	Fracture criteria identification using an inverse technique method and blanking experiment. <i>International Journal of Mechanical Sciences</i> , <b>2002</b> , 44, 1349-1361	5.5	104
9	Blanking tool wear modeling using the finite element method. <i>International Journal of Machine Tools and Manufacture</i> , <b>2001</b> , 41, 1815-1829	9.4	43
8	Comparison between 2D and 3D numerical modeling of superplastic forming processes. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2001</b> , 190, 4871-4880	5.7	10
7	Numerical pressure prediction algorithm of superplastic forming processes using 2D and 3D models. <i>Journal of Materials Processing Technology</i> , <b>2001</b> , 112, 83-90	5.3	14
6	Finite element simulation of fine blanking processes using a pressure-dependent damage model. <i>Journal of Materials Processing Technology</i> , <b>2001</b> , 116, 252-264	5.3	35
5	Finite element model fracture prediction during sheet-metal blanking processes. <i>Engineering Fracture Mechanics</i> , <b>2001</b> , 68, 365-378	4.2	50

4	Comparison between Lemaitre and Gurson damage models in crack growth simulation during blanking process. <i>International Journal of Mechanical Sciences</i> , <b>2001</b> , 43, 2769-2790	5.5	66
3	Finite element modeling of sheet-metal blanking operations with experimental verification. <i>Journal of Materials Processing Technology</i> , <b>2000</b> , 102, 257-265	5.3	49
2	Damage and fracture simulation during the extrusion processes. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2000</b> , 186, 109-120	5.7	24
1	Fracture prediction of sheet-metal blanking process. <i>Studies in Applied Mechanics</i> , <b>1997</b> , 45, 125-134		0