## **Gunther Steenackers**

## List of Publications by Citations

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51 512 14 20 g-index

56 636 3.4 3.89 ext. papers ext. citations avg, IF L-index

#	Paper Paper	IF	Citations
51	Finite element model updating taking into account the uncertainty on the modal parameters estimates. <i>Journal of Sound and Vibration</i> , <b>2006</b> , 296, 919-934	3.9	52
50	On the use of transmissibility measurements for finite element model updating. <i>Journal of Sound and Vibration</i> , <b>2007</b> , 303, 707-722	3.9	38
49	From operating deflection shapes towards mode shapes using transmissibility measurements. <i>Mechanical Systems and Signal Processing</i> , <b>2010</b> , 24, 665-677	7.8	35
48	Cascaded statistical shape model based segmentation of the full lower limb in CT. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , <b>2019</b> , 22, 644-657	2.1	33
47	Development of an adaptive response surface method for optimization of computation-intensive models. <i>Computers and Industrial Engineering</i> , <b>2009</b> , 57, 847-855	6.4	28
46	Robust quantitative depth estimation on CFRP samples using active thermography inspection and numerical simulation updating. <i>NDT and E International</i> , <b>2017</b> , 87, 119-123	4.1	27
45	Statistical Shape Modeling of Skeletal Anatomy for Sex Discrimination: Their Training Size, Sexual Dimorphism, and Asymmetry. <i>Frontiers in Bioengineering and Biotechnology</i> , <b>2019</b> , 7, 302	5.8	23
44	Decoupling of mechanical systems based on in-situ frequency response functions: The link-preserving, decoupling method. <i>Mechanical Systems and Signal Processing</i> , <b>2015</b> , 58-59, 340-354	7.8	22
43	Optical measurement of the dynamic strain field of a fan blade using a 3D scanning vibrometer. <i>Optics and Lasers in Engineering</i> , <b>2011</b> , 49, 988-997	4.6	21
42	Updating a finite element model to the real experimental setup by thermographic measurements and adaptive regression optimization. <i>Mechanical Systems and Signal Processing</i> , <b>2015</b> , 64-65, 428-440	7.8	18
41	Optimised dynamic line scan thermographic detection of CFRP inserts using FE updating and POD analysis. <i>NDT and E International</i> , <b>2018</b> , 93, 141-149	4.1	17
40	Reliability-based design optimization of computation-intensive models making use of response surface models. <i>Quality and Reliability Engineering International</i> , <b>2011</b> , 27, 555-568	2.6	15
39	Bias-specified robust design optimization: A generalized mean squared error approach. <i>Computers and Industrial Engineering</i> , <b>2008</b> , 54, 259-268	6.4	15
38	IR Reflectography and Active Thermography on Artworks: The Added Value of the 1.5 <b>B</b> µm Band. <i>Applied Sciences (Switzerland)</i> , <b>2018</b> , 8, 50	2.6	14
37	Fast variance calculation of polyreference least-squares frequency-domain estimates. <i>Mechanical Systems and Signal Processing</i> , <b>2009</b> , 23, 1423-1433	7.8	13
36	Determining directional emissivity: Numerical estimation and experimental validation by using infrared thermography. <i>Infrared Physics and Technology</i> , <b>2016</b> , 77, 344-350	2.7	11
35	A discrete element model to predict anatomy of the psoas muscle and path of the tendon: Design implications for total hip arthroplasty. <i>Clinical Biomechanics</i> , <b>2019</b> , 70, 186-191	2.2	9

## (2014-2012)

34	Acoustic source identification using a Generalized Weighted Inverse Beamforming technique. <i>Mechanical Systems and Signal Processing</i> , <b>2012</b> , 32, 349-358	7.8	9	
33	Experimental study of the flow field induced by a resonating piezoelectric flapping wing. <i>Experiments in Fluids</i> , <b>2013</b> , 54, 1	2.5	8	
32	Robust optimization of an airplane component taking into account the uncertainty of the design parameters. <i>Quality and Reliability Engineering International</i> , <b>2009</b> , 25, 255-282	2.6	8	
31	Evaluating quality of marquetries by applying active IR thermography and advanced signal processing. <i>Journal of Thermal Analysis and Calorimetry</i> , <b>2021</b> , 143, 3835-3848	4.1	8	
30	Development of an Equivalent Composite Honeycomb Model: A Finite Element Study. <i>Applied Composite Materials</i> , <b>2016</b> , 23, 1177-1194	2	8	
29	Active thermography setup updating for NDE: a comparative study of regression techniques and optimisation routines with high contrast parameter influences for thermal problems. <i>Optimization and Engineering</i> , <b>2018</b> , 19, 163-185	2.1	8	
28	Hydronic design of cogeneration in collective residential heating systems: state-of-the-art, comparison and improvements. <i>Applied Thermal Engineering</i> , <b>2019</b> , 148, 1246-1257	5.8	7	
27	Computer-based estimation of the hip joint reaction force and hip flexion angle in three different sitting configurations. <i>Applied Ergonomics</i> , <b>2017</b> , 63, 99-105	4.2	6	
26	Separating positional noise from neutral alignment in multicomponent statistical shape models. <i>Bone Reports</i> , <b>2020</b> , 12, 100243	2.6	6	
25	Mechanics of Psoas Tendon Snapping. A Virtual Population Study. <i>Frontiers in Bioengineering and Biotechnology</i> , <b>2020</b> , 8, 264	5.8	6	
24	Optimized dynamic line scanning thermography for aircraft structures. <i>Quantitative InfraRed Thermography Journal</i> , <b>2019</b> , 16, 260-275	1.1	5	
23	Time calibration of thermal rolling shutter infrared cameras. <i>Infrared Physics and Technology</i> , <b>2017</b> , 80, 145-152	2.7	4	
22	Optimized robotic setup for automated active thermography using advanced path planning and visibility study. <i>Applied Optics</i> , <b>2018</b> , 57, D123-D129	1.7	4	
21	Development of a regressive finite element model optimization technique making use of transmissibilities. <i>Structural and Multidisciplinary Optimization</i> , <b>2009</b> , 39, 47-62	3.6	4	
20	Microphone positioning optimization for conditioning inverse tonal fan noise. <i>Mechanical Systems and Signal Processing</i> , <b>2010</b> , 24, 1682-1692	7.8	4	
19	3D Defect detection using weighted principal component thermography. <i>Optics and Lasers in Engineering</i> , <b>2020</b> , 128, 106039	4.6	4	
18	Cluster Analysis of IR Thermography Data for Differentiating Glass Types in Historical Leaded-Glass Windows. <i>Applied Sciences (Switzerland)</i> , <b>2020</b> , 10, 4255	2.6	3	
17	Finite element optimization by pulsed thermography with adaptive response surfaces <b>2014</b> ,		3	

16	Personalized hip joint kinetics during deep squatting in young, athletic adults. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , <b>2020</b> , 23, 23-32	2.1	3
15	A Study on the Bandwidth Characteristics of Pleated Pneumatic Artificial Muscles. <i>Applied Bionics and Biomechanics</i> , <b>2009</b> , 6, 3-9	1.6	2
14	Dynamic Line Scan Thermography Optimisation Using Response Surfaces Implemented on PVC Flat Bottom Hole Plates. <i>Applied Sciences (Switzerland)</i> , <b>2021</b> , 11, 1538	2.6	2
13	Optimisation of a Heat Source for Infrared Thermography Measurements: Comparison to Mehler Engineering + Service-Heater. <i>Applied Sciences (Switzerland)</i> , <b>2020</b> , 10, 1285	2.6	1
12	Excitation Source Optimisation for Active Thermography. <i>Proceedings (mdpi)</i> , <b>2018</b> , 2, 439	0.3	1
11	Determining the Power Flow in a Rectangular Plate Using a Generalized Two-Step Regressive Discrete Fourier Series. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , <b>2012</b> , 134,	1.6	1
10	Infrared Thermography for DIEP Flap Breast Reconstruction Part I: Measurements [] <i>Proceedings</i> (mdpi), <b>2019</b> , 27, 48	0.3	1
9	Infrared Thermography for DIEP Flap Breast Reconstruction Part II: Analysis of the Results. <i>Proceedings (mdpi)</i> , <b>2019</b> , 27, 49	0.3	1
8	Dynamic Line Scan Thermography Parameter Design via Gaussian Process Emulation. <i>Algorithms</i> , <b>2022</b> , 15, 102	1.8	1
7	Spot Weld Inspections Using Active Thermography. <i>Applied Sciences (Switzerland)</i> , <b>2022</b> , 12, 5668	2.6	1
6	Determination of stratospheric component behaviour using Finite Element model updating. <i>Aerospace Science and Technology</i> , <b>2016</b> , 56, 22-28	4.9	0
5	From Thermal Inspection to Updating a Numerical Model of a Race Bicycle: Comparison with Structural Dynamics Approach. <i>Applied Sciences (Switzerland)</i> , <b>2018</b> , 8, 307	2.6	O
4	Dynamic Infrared Thermography (DIRT) in Biomedical Applications: DIEP Flap Breast Reconstruction and Skin Cancer. <i>Engineering Proceedings</i> , <b>2021</b> , 8, 3	0.5	O
3	A simplified model of a mechanical cooling tower with both a fill pack and a coil. <i>E3S Web of Conferences</i> , <b>2017</b> , 22, 00145	0.5	
2	Improving Quality Inspection of Textiles by an Augmented RGB-IR-HS-AI Approach. <i>Engineering Proceedings</i> , <b>2021</b> , 8, 21	0.5	
1	Finite element model updating using thermographic measurements: Comparison between materials with high and low thermal conductivity <b>2015</b> , 261-266		