

# Dario Ambrosini

## List of Publications by Citations

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120  
papers

1,963  
citations

23  
h-index

38  
g-index

141  
ext. papers

2,280  
ext. citations

2.9  
avg, IF

5  
L-index

#	Paper	IF	Citations
120	Propagation of axially symmetric flattened Gaussian beams. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , <b>1996</b> , 13, 1385	1.8	143
119	Data-driven model predictive control using random forests for building energy optimization and climate control. <i>Applied Energy</i> , <b>2018</b> , 226, 1252-1272	10.7	126
118	Twisted Gaussian Schell-model Beams: A Superposition Model. <i>Journal of Modern Optics</i> , <b>1994</b> , 41, 1391-1399	85	
117	Quantification of heat energy losses through the building envelope: A state-of-the-art analysis with critical and comprehensive review on infrared thermography. <i>Building and Environment</i> , <b>2018</b> , 146, 190-205	6.5	83
116	Evaluating Mitigation Effects of Urban Heat Islands in a Historical Small Center with the ENVI-Met <sup>2</sup> Climate Model. <i>Sustainability</i> , <b>2014</b> , 6, 7013-7029	3.6	74
115	Preventive thermographic diagnosis of historical buildings for consolidation. <i>Journal of Cultural Heritage</i> , <b>2013</b> , 14, 116-121	2.9	63
114	U-value assessment by infrared thermography: A comparison of different calculation methods in a Guarded Hot Box. <i>Energy and Buildings</i> , <b>2016</b> , 122, 211-221	7	62
113	Displacement measurement using the Talbot effect with a Ronchi grating. <i>Journal of Optics</i> , <b>2002</b> , 4, S376-S380		50
112	Integrated reflectography and thermography for wooden paintings diagnostics. <i>Journal of Cultural Heritage</i> , <b>2010</b> , 11, 196-204	2.9	48
111	Diagnostics of panel paintings using holographic interferometry and pulsed thermography. <i>Quantitative InfraRed Thermography Journal</i> , <b>2010</b> , 7, 85-114	1.1	43
110	A qualitative method for combining thermal imprints to emerging weak points of ancient wall structures by passive infrared thermography: A case study. <i>Journal of Cultural Heritage</i> , <b>2014</b> , 15, 199-202 <sup>9</sup>	2.9	41
109	Overview of diffusion measurements by optical techniques. <i>Optics and Lasers in Engineering</i> , <b>2008</b> , 46, 852-864	4.6	39
108	Contouring of artwork surface by fringe projection and FFT analysis. <i>Optics and Lasers in Engineering</i> , <b>2000</b> , 33, 141-156	4.6	38
107	Ceramics and defects. <i>Journal of Thermal Analysis and Calorimetry</i> , <b>2016</b> , 123, 43-62	4.1	32
106	Active thermography testing and data analysis for the state of conservation of panel paintings. <i>International Journal of Thermal Sciences</i> , <b>2018</b> , 126, 143-151	4.1	29
105	A comparison between thermographic and flow-meter methods for the evaluation of thermal transmittance of different wall constructions. <i>Journal of Physics: Conference Series</i> , <b>2015</b> , 655, 012007	0.3	29
104	Subsurface defect characterization in artworks by quantitative pulsed phase thermography and holographic interferometry. <i>Quantitative InfraRed Thermography Journal</i> , <b>2008</b> , 5, 131-149	1.1	29

103	NDT inspection of plastered mosaics by means of transient thermography and holographic interferometry. <i>NDT and E International</i> , <b>2012</b> , 47, 150-156	4.1	28
102	A first approach to universal daylight and occupancy control system for any lamps: Simulated case in an academic classroom. <i>Energy and Buildings</i> , <b>2017</b> , 152, 24-39	7	28
101	Holographic Interferometry (HI), Infrared Vision and X-Ray Fluorescence (XRF) spectroscopy for the assessment of painted wooden statues: a new integrated approach. <i>Applied Physics A: Materials Science and Processing</i> , <b>2014</b> , 115, 1041-1056	2.6	24
100	Multi-year consumption analysis and innovative energy perspectives: The case study of Leonardo da Vinci International Airport of Rome. <i>Energy Conversion and Management</i> , <b>2016</b> , 128, 261-272	10.6	24
99	Thermal Quasi-Reflectography: a new imaging tool in art conservation. <i>Optics Express</i> , <b>2012</b> , 20, 14746-53	3.3	23
98	Room and window geometry influence for daylight harvesting maximization [Effects on energy savings in an academic classroom. <i>Energy Procedia</i> , <b>2018</b> , 148, 1090-1097	2.3	23
97	Santa Maria di Collemaggio Church (L'Aquila, Italy): Historical Reconstruction by Non-Destructive Testing Techniques. <i>International Journal of Architectural Heritage</i> , <b>2015</b> , 9, 367-390	2.1	22
96	Is a self-sufficient building energy efficient? Lesson learned from a case study in Mediterranean climate. <i>Applied Energy</i> , <b>2018</b> , 218, 131-145	10.7	22
95	Integrated approach between pulsed thermography, near-infrared reflectography and sandwich holography for wooden panel paintings advanced monitoring. <i>Russian Journal of Nondestructive Testing</i> , <b>2011</b> , 47, 284-293	0.7	22
94	Quantitative thermography for the estimation of the U-value: state of the art and a case study. <i>Journal of Physics: Conference Series</i> , <b>2014</b> , 547, 012016	0.3	21
93	Diffraction optical element-based profilometer for surface inspection. <i>Optical Engineering</i> , <b>2001</b> , 40, 44	1.1	21
92	Infrared exploration of the architectural heritage: from passive infrared thermography to hybrid infrared thermography (HIRT) approach. <i>Materiales De Construccion</i> , <b>2016</b> , 66, e094	1.8	20
91	The energy efficiency challenge for a historical building undergone to seismic and energy refurbishment. <i>Energy Procedia</i> , <b>2017</b> , 133, 231-242	2.3	19
90	Discovering the Defects in Paintings Using Non-destructive Testing (NDT) Techniques and Passing Through Measurements of Deformation. <i>Journal of Nondestructive Evaluation</i> , <b>2014</b> , 33, 358-383	2.1	19
89	Eco-Friendly Laminates: From the Indentation to Non-Destructive Evaluation by Optical and Infrared Monitoring Techniques. <i>Strain</i> , <b>2013</b> , 49, 175-189	1.7	18
88	Evaluation of diffusion in liquids by digital speckle pattern interferometry: computer simulation and experiments. <i>European Journal of Physics</i> , <b>1996</b> , 17, 51-59	0.8	18
87	An NDT electro-optic system for mosaics investigations. <i>Journal of Cultural Heritage</i> , <b>2003</b> , 4, 369-376	2.9	17
86	Sensitivity of heating performance of an energy self-sufficient building to climate zone, climate change and HVAC system solutions. <i>Sustainable Cities and Society</i> , <b>2020</b> , 61, 102300	10.1	16

85	How to Retrieve Information Inherent to Old Restorations Made on Frescoes of Particular Artistic Value Using Infrared Vision?. <i>International Journal of Thermophysics</i> , <b>2015</b> , 36, 3051-3070	2.1	16
84	Bouncing light beams and the Hamiltonian analogy. <i>European Journal of Physics</i> , <b>1997</b> , 18, 284-289	0.8	16
83	Study of free-convective onset on a horizontal wire using speckle pattern interferometry. <i>International Journal of Heat and Mass Transfer</i> , <b>2003</b> , 46, 4145-4155	4.9	16
82	Three-dimensional optical profilometry for artwork inspection. <i>Journal of Optics</i> , <b>2000</b> , 2, 353-361		16
81	High-precision digital automated measurement of degree of coherence in the Thompson and Wolf experiment. <i>Journal of Optics</i> , <b>1998</b> , 7, 933-939		16
80	Combined experimental and computational approach for defect detection in precious walls built in indoor environments. <i>International Journal of Thermal Sciences</i> , <b>2018</b> , 129, 29-46	4.1	15
79	The thermophysical behaviour of cork supports doped with an innovative thermal insulation and protective coating: A numerical analysis based on in situ experimental data. <i>Energy and Buildings</i> , <b>2018</b> , 159, 508-528	7	15
78	Non-Destructive Testing Techniques to Help the Restoration of Frescoes. <i>Arabian Journal for Science and Engineering</i> , <b>2014</b> , 39, 3461-3480		15
77	Roughness measurement by electronic speckle correlation and mechanical profilometry. <i>Measurement: Journal of the International Measurement Confederation</i> , <b>1997</b> , 20, 243-249	4.6	14
76	A Simple Method of Determining Diffusion Coefficient by Digital Laser Speckle Correlation. <i>Journal De Physique III</i> , <b>1996</b> , 6, 1117-1125		14
75	Vibration monitoring by fiber optic fringe projection and Fourier transform analysis. <i>Optics Communications</i> , <b>1997</b> , 139, 17-23	2	13
74	Comparative measurements of natural convection heat transfer in channels by holographic interferometry and schlieren. <i>European Journal of Physics</i> , <b>2006</b> , 27, 159-172	0.8	13
73	A proposal of a new material for greenhouses on the basis of numerical, optical, thermal and mechanical approaches. <i>Construction and Building Materials</i> , <b>2017</b> , 155, 332-347	6.7	12
72	A comparative investigation for the nondestructive testing of honeycomb structures by holographic interferometry and infrared thermography. <i>Journal of Physics: Conference Series</i> , <b>2010</b> , 214, 012071	0.3	12
71	Electro-optic correlation for in situ diagnostics in mural frescoes. <i>Journal of Optics</i> , <b>1997</b> , 6, 557-563		12
70	Image decorrelation for in situ diagnostics of wooden artifacts. <i>Applied Optics</i> , <b>1997</b> , 36, 8358-62	1.7	11
69	Optical methods in heat transfer and fluid flow. <i>Optics and Lasers in Engineering</i> , <b>2006</b> , 44, 155-158	4.6	11
68	Liquid diffusion coefficients by digital moiré. <i>Optical Engineering</i> , <b>2004</b> , 43, 798	1.1	11

67	The propagator for a particle in a well. <i>European Journal of Physics</i> , <b>2001</b> , 22, 53-66	0.8	11
66	On the use of phase change materials applied on cork-coconut-cork panels. <i>Journal of Thermal Analysis and Calorimetry</i> , <b>2019</b> , 138, 4061-4090	4.1	10
65	Validation of quantitative IR thermography for estimating the U-value by a hot box apparatus. <i>Journal of Physics: Conference Series</i> , <b>2015</b> , 655, 012006	0.3	10
64	Field correlations within a homogeneous and isotropic source. <i>Optics Communications</i> , <b>1994</b> , 107, 331-334	3.4	10
63	Modeling and Optimization of the Thermal Performance of a Wood-Cement Block in a Low-Energy House Construction. <i>Energies</i> , <b>2016</b> , 9, 677	3.1	10
62	Multipurpose, dual-mode imaging in the 3 $\mu$ m range (MWIR) for artwork diagnostics: A systematic approach. <i>Optics and Lasers in Engineering</i> , <b>2018</b> , 104, 266-273	4.6	10
61	Quantitative Infrared Thermography (IRT) and Holographic Interferometry (HI): Nondestructive Testing (NDT) for Defects Detection in the Silicate Ceramics Industry. <i>Advances in Science and Technology</i> , <b>2010</b> , 68, 102-107	0.1	9
60	Talbot effect application: measurement of distance with a Fourier-transform method. <i>Measurement Science and Technology</i> , <b>2000</b> , 11, 77-82	2	9
59	Integrated Measuring and Control System for Thermal Analysis of Buildings Components in Hot Box Experiments. <i>Energies</i> , <b>2019</b> , 12, 2053	3.1	8
58	Low-cost optoelectronic system for three-dimensional artwork texture measurement. <i>IEEE Transactions on Image Processing</i> , <b>2004</b> , 13, 390-6	8.7	8
57	Speckle decorrelation study of liquid diffusion. <i>Optics and Lasers in Engineering</i> , <b>2002</b> , 37, 341-353	4.6	8
56	Destructive interference from three partially coherent point sources. <i>Optics Communications</i> , <b>2005</b> , 254, 30-39	2	8
55	Fourier transform evaluation of digital interferograms for diffusivity measurement. <i>Journal of Optics</i> , <b>1994</b> , 3, 249-254		8
54	On Field Infrared Thermography Sensing for PV System Efficiency Assessment: Results and Comparison with Electrical Models. <i>Sensors</i> , <b>2020</b> , 20,	3.8	7
53	Flow visualization and beyond. <i>Optics and Lasers in Engineering</i> , <b>2012</b> , 50, 1-7	4.6	7
52	Wide-band IR imaging in the NIR-MIR-FIR regions for in situ analysis of frescoes <b>2011</b> ,		7
51	Comparative study for the nondestructive testing of advanced ceramic materials by infrared thermography and holographic interferometry <b>2010</b> ,		7
50	Measurement of vibration amplitude by an optical fiber-based moiré interferometer. <i>Optics and Lasers in Engineering</i> , <b>1998</b> , 30, 213-223	4.6	7

49	Holographic and speckle methods for the analysis of panel paintings. Developments since the early 1970s. <i>Studies in Conservation</i> , <b>2004</b> , 49, 38-48	0.6	7
48	Fibre optic projected fringes for monitoring marble surface status. <i>Journal of Cultural Heritage</i> , <b>2000</b> , 1, S337-S343	2.9	7
47	A Cost-Effective System for Aerial 3D Thermography of Buildings. <i>Journal of Imaging</i> , <b>2020</b> , 6,	3.1	7
46	Multi-scale approach for analyzing convective heat transfer flow in background-oriented Schlieren technique. <i>Optics and Lasers in Engineering</i> , <b>2018</b> , 110, 415-419	4.6	6
45	Mid-infrared reflectography for the analysis of pictorial surface layers in artworks <b>2013</b> ,		6
44	Digital moir´ by a diffractive optical element for deformation analysis of ancient paintings. <i>Journal of Optics</i> , <b>2003</b> , 5, S146-S151		6
43	Diffractive optical element based sensor for roughness measurement. <i>Sensors and Actuators A: Physical</i> , <b>2002</b> , 100, 180-186	3.9	6
42	Sandwich holography for determining the convective heat transfer coefficient. <i>Journal of Optics</i> , <b>2000</b> , 2, 39-42		6
41	Buoyancy-induced flows monitoring by digital speckle photography and Fourier transform analysis. <i>Optics Communications</i> , <b>1999</b> , 169, 51-57	2	6
40	Temperature Measurement in Laminar Free Convection Using Electro-Optic Holography. <i>Journal De Physique III</i> , <b>1997</b> , 7, 1893-1898		6
39	Energetic performance analysis of a commercial water-based photovoltaic thermal system (PV/T) under summer conditions. <i>Journal of Physics: Conference Series</i> , <b>2017</b> , 923, 012040	0.3	5
38	White-light speckle photography technique applied for free convection heat transfer problems. <i>Flow Measurement and Instrumentation</i> , <b>2010</b> , 21, 98-104	2.2	5
37	Smartphone diagnostics for cultural heritage <b>2019</b> ,		5
36	Fast and robust method for flow analysis using GPU assisted diffractive optical element based background oriented schlieren (BOS). <i>Optics and Lasers in Engineering</i> , <b>2020</b> , 126, 105908	4.6	5
35	Influence of insulation defects on the thermal performance of walls. An experimental and numerical investigation. <i>Journal of Building Engineering</i> , <b>2019</b> , 21, 355-365	5.2	5
34	NDT methods in artwork corrosion monitoring <b>2007</b> ,		4
33	White-light digital speckle photography in free convection. <i>Optics Communications</i> , <b>2002</b> , 201, 39-44	2	4
32	Sandwich holography for simultaneous temperature visualization and heat-transfer coefficient measurement. <i>Optical Engineering</i> , <b>2001</b> , 40, 1274	1.1	4

31	Surface contouring by diffractive optical element-based fringe projection. <i>Measurement Science and Technology</i> , <b>2001</b> , 12, N6-N8	2	4
30	Studying heat transfer with TV-holography. <i>European Journal of Physics</i> , <b>1994</b> , 15, 315-318	0.8	4
29	INVESTIGATION OF NATURAL CONVECTION IN VERTICAL CHANNELS BY SCHLIEREN AND HOLOGRAPHIC INTERFEROMETRY. <i>Journal of Flow Visualization and Image Processing</i> , <b>2004</b> , 11, 323-334	0.8	4
28	Role of data processing in measuring temperature gradients with DOE Schardin's schlieren #2. <i>Optics and Lasers in Engineering</i> , <b>2012</b> , 50, 1069-1074	4.6	3
27	Successful pinhole photography. <i>American Journal of Physics</i> , <b>1997</b> , 65, 256-257	0.7	3
26	Heat transfer measurement by a diffractive optical element fringe projection. <i>Optical Engineering</i> , <b>2007</b> , 46, 093606	1.1	3
25	Virtual gallery of ancient coins through conoscopic holography <b>2003</b> ,		3
24	Comparative study on the efficiency of some optical methods for artwork diagnostics <b>2001</b> ,		3
23	Building energy performance analysis at urban scale: A supporting tool for energy strategies and urban building energy rating identification. <i>Sustainable Cities and Society</i> , <b>2021</b> , 74, 103220	10.1	3
22	The hybrid thermography approach applied to architectural structures <b>2017</b> ,		2
21	Imaging data integration for painting diagnostics <b>2009</b> ,		2
20	An elementary approach to spinors. <i>European Journal of Physics</i> , <b>1997</b> , 18, 256-262	0.8	2
19	Sensor monitoring system for PV plant with active load <b>2019</b> ,		1
18	Influence of the convective coefficient on the determination of thermal transmittance through outdoor infrared thermography. <i>Journal of Physics: Conference Series</i> , <b>2020</b> , 1599, 012016	0.3	1
17	The Potential of Optical Profilometry in the Study of Cultural Stone Weathering. <i>Journal of Imaging</i> , <b>2019</b> , 5,	3.1	1
16	Thermal Quasi-Reflectography (TQR): current research and potential applications <b>2013</b> ,		1
15	Defects detection and non-destructive testing (NDT) techniques in paintings: a unified approach through measurements of deformation <b>2013</b> ,		1
14	33rd UIT (Italian Union of Thermo-fluid dynamics) Heat Transfer Conference. <i>Journal of Physics: Conference Series</i> , <b>2015</b> , 655, 011001	0.3	1

13	Role of the masonry in paintings during a seismic event analyzed by infrared vision <b>2015</b> ,		1
12	Dual mode imaging in mid infrared with thermal signal reconstruction for innovative diagnostics of the "Monocromo" by Leonardo da Vinci. <i>Scientific Reports</i> , <b>2021</b> , 11, 22482	4.9	1
11	Effects of energy efficiency measures on building performance: an analysis in seven European cities. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2019</b> , 609, 072076	0.4	1
10	A versatile system for in-situ speckle and thermography-based diagnostics of artifacts. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2018</b> , 364, 012063	0.4	1
9	Effect of noise on measurements of diffusivity in transparent liquid mixtures by digital speckle photography. <i>EPJ Applied Physics</i> , <b>2018</b> , 82, 30501	1.1	1
8	On the influence of environmental boundary conditions on surface thermal resistance of walls: Experimental evaluation through a Guarded Hot Box. <i>Case Studies in Thermal Engineering</i> , <b>2022</b> , 34, 101915	5.6	1
7	Spice Model of Photovoltaic Panel for Electronic System Design. <i>Lecture Notes in Electrical Engineering</i> , <b>2020</b> , 425-431	0.2	0
6	Learning lighting models for optimal control of lighting system via experimental and numerical approach. <i>Science and Technology for the Built Environment</i> , <b>2020</b> , 1-13	1.8	
5	Sandwich holography for studying convective fields: performance analysis. <i>Optical Engineering</i> , <b>2010</b> , 49, 033605	1.1	
4	Speckle-Based Deflection Techniques in Diffusivity Measurements. <i>Defect and Diffusion Forum</i> , <b>2011</b> , 312-315, 912-917	0.7	
3	Energy optimization analysis of archetype public buildings [Results from SHERPA European Project. <i>E3S Web of Conferences</i> , <b>2021</b> , 312, 02007	0.5	
2	Influence of environmental boundary conditions on convective heat transfer coefficients of wall internal surface. <i>E3S Web of Conferences</i> , <b>2021</b> , 312, 02012	0.5	
1	Artwork Profilometry Using a Diffractive Element for Fringe Projection <b>2000</b> , 581-588		