

# Franco Docchio

## List of Publications by Year in descending order

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109  
papers

2,244  
citations

304743

22  
h-index

243625

44  
g-index

110  
all docs

110  
docs citations

110  
times ranked

1998  
citing authors

| #  | ARTICLE                                                                                                                                                                                          | IF  | CITATIONS |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 1  | Optical coherence tomography angiography and arterial hypertension: A role in identifying subclinical microvascular damage?. European Journal of Ophthalmology, 2021, 31, 158-165.               | 1.3 | 50        |
| 2  | Investigating Additive Manufactured Lattice Structures: A Multi-Instrument Approach. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 2459-2467.                                  | 4.7 | 16        |
| 3  | Performance Analysis of the PMD Camboard Picoflexx Time-of-Flight Camera for Markerless Motion Capture Applications. IEEE Transactions on Instrumentation and Measurement, 2019, 68, 4456-4471.  | 4.7 | 23        |
| 4  | Deep learning-based hand gesture recognition for collaborative robots. IEEE Instrumentation and Measurement Magazine, 2019, 22, 44-51.                                                           | 1.6 | 46        |
| 5  | Hand Gesture Recognition for Collaborative Workstations: A Smart Command System Prototype. Lecture Notes in Computer Science, 2019, , 332-342.                                                   | 1.3 | 5         |
| 6  | New Methods to Study the Microcirculation. American Journal of Hypertension, 2018, 31, 265-273.                                                                                                  | 2.0 | 35        |
| 7  | Comparison between invasive and noninvasive techniques of evaluation of microvascular structural alterations. Journal of Hypertension, 2018, 36, 1154-1163.                                      | 0.5 | 31        |
| 8  | Reply. Journal of Hypertension, 2018, 36, 2278-2279.                                                                                                                                             | 0.5 | 0         |
| 9  | In-Line Monitoring of Laser Welding Using a Smart Vision System. , 2018, , .                                                                                                                     |     | 5         |
| 10 | Deep Learning Based Machine Vision: First Steps Towards a Hand Gesture Recognition Set Up for Collaborative Robots. , 2018, , .                                                                  |     | 16        |
| 11 | A Depth From Defocus Measurement System Using a Liquid Lens Objective for Extended Depth Range. IEEE Transactions on Instrumentation and Measurement, 2017, 66, 441-450.                         | 4.7 | 16        |
| 12 | Automatic selection of focal lengths in a Depth From Defocus measurement system based on liquid lenses. Optics and Lasers in Engineering, 2017, 96, 68-74.                                       | 3.8 | 2         |
| 13 | Experimental characterization of an autofocus algorithm based on liquid lens objective for in-focus imaging in the macro range. , 2017, , .                                                      |     | 0         |
| 14 | Assessment of retinal arteriolar morphology by noninvasive methods. Journal of Hypertension, 2016, 34, 1044-1046.                                                                                | 0.5 | 7         |
| 15 | A fast autofocus setup using a liquid lens objective for in-focus imaging in the macro range. AIP Conference Proceedings, 2016, , .                                                              | 0.4 | 2         |
| 16 | A novel optical apparatus for the study of rolling contact wear/fatigue based on a high-speed camera and multiple-source laser illumination. Review of Scientific Instruments, 2016, 87, 083701. | 1.3 | 10        |
| 17 | A Novel Algorithm for EMG Signal Processing and Muscle Timing Measurement. IEEE Transactions on Instrumentation and Measurement, 2015, 64, 2995-3004.                                            | 4.7 | 33        |
| 18 | Optoranger: A 3D pattern matching method for bin picking applications. Optics and Lasers in Engineering, 2014, 54, 222-231.                                                                      | 3.8 | 20        |

| #  | ARTICLE                                                                                                                                                                                                                           | IF   | CITATIONS |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 19 | Roboscan: a combined 2D and 3D vision system for improved speed and flexibility in pick-and-place operation. International Journal of Advanced Manufacturing Technology, 2013, 69, 1873-1886.                                     | 3.0  | 20        |
| 20 | 3D system for the measurement of tube eccentricity: an improved, rugged, easy to calibrate layout. Measurement Science and Technology, 2013, 24, 035901.                                                                          | 2.6  | 4         |
| 21 | LED ILLUMINATION: ILLUMINOTECHNICAL, OPTICAL, METROLOGICAL AND SAFETY ISSUES. , 2013, , 292-308.                                                                                                                                  |      | 0         |
| 22 | Relationship between media-to-lumen ratio of subcutaneous small arteries and wall-to-lumen ratio of retinal arterioles evaluated noninvasively by scanning laser Doppler flowmetry. Journal of Hypertension, 2012, 30, 1169-1175. | 0.5  | 85        |
| 23 | Combination of 2D and 3D vision systems into robotic cells for improved flexibility and performance. , 2011, , .                                                                                                                  |      | 7         |
| 24 | A 400-kHz High-Accuracy Laser Telemeter for Distributed Measurements of 3-D Profiles. IEEE Transactions on Instrumentation and Measurement, 2011, 60, 1054-1060.                                                                  | 4.7  | 3         |
| 25 | Design and development of a 3D system for the measurement of tube eccentricity. Measurement Science and Technology, 2011, 22, 075302.                                                                                             | 2.6  | 8         |
| 26 | 3D Optical Body Scanning: Application to Forensic Medicine and to Maxillofacial Reconstruction. , 2010, , .                                                                                                                       |      | 4         |
| 27 | State-of-The-Art and Applications of 3D Imaging Sensors in Industry, Cultural Heritage, Medicine, and Criminal Investigation. Sensors, 2009, 9, 568-601.                                                                          | 3.8  | 443       |
| 28 | Virtual and physical prototyping by means of a 3D optical digitizer: Application to facial prosthetic reconstruction. Virtual and Physical Prototyping, 2009, 4, 217-226.                                                         | 10.4 | 13        |
| 29 | Advanced laser telemetry for vehicle monitoring and other industrial applications. , 2009, , .                                                                                                                                    |      | 1         |
| 30 | University-Industry Synergies in Photonics and Optoelectronics: the Case of Brescia. , 2007, , .                                                                                                                                  |      | 2         |
| 31 | Application of three-dimensional optical acquisition to the documentation and the analysis of crime scenes and legal medicine inspection. , 2007, , .                                                                             |      | 2         |
| 32 | Fast 3D profilometer based upon the projection of a single fringe pattern and absolute calibration. Measurement Science and Technology, 2006, 17, 1757-1766.                                                                      | 2.6  | 20        |
| 33 | Inspection, 3D modelling, and rapid prototyping of cultural heritage by means of a 3D optical digitiser. , 2005, , .                                                                                                              |      | 2         |
| 34 | 3-D Optical Measurements in the Field of Cultural Heritage: The Case of the Vittoria Alata of Brescia. IEEE Transactions on Instrumentation and Measurement, 2005, 54, 359-368.                                                   | 4.7  | 31        |
| 35 | In-field performance of an optical digitizer for the reverse engineering of free-form surfaces. International Journal of Advanced Manufacturing Technology, 2005, 26, 1353-1361.                                                  | 3.0  | 27        |
| 36 | Autofluorescence methods in ophthalmology. Journal of Biomedical Optics, 2004, 9, 9.                                                                                                                                              | 2.6  | 41        |

| #  | ARTICLE                                                                                                                                                               | IF  | CITATIONS |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 37 | Three-dimensional optical measurements and reverse engineering for automotive applications. Robotics and Computer-Integrated Manufacturing, 2004, 20, 359-367.        | 9.9 | 74        |
| 38 | Unsupervised corrections of unknown chromatic dominants using a Brownian-path-based Retinex algorithm. Journal of Electronic Imaging, 2003, 12, 431.                  | 0.9 | 19        |
| 39 | OPL-3D: A novel, portable optical digitizer for fast acquisition of free-form surfaces. Review of Scientific Instruments, 2003, 74, 2593-2603.                        | 1.3 | 28        |
| 40 | A system for the inspection and quality control of glass slabs. Review of Scientific Instruments, 2002, 73, 3386-3391.                                                | 1.3 | 15        |
| 41 | Novel optical sensor for the measurement of surface texture. Review of Scientific Instruments, 2001, 72, 2207-2213.                                                   | 1.3 | 6         |
| 42 | Determination of the concentrations of interferences in blood serum by use of a novel solid-state colorimeter. Measurement Science and Technology, 2000, 11, 185-192. | 2.6 | 3         |
| 43 | Low-noise differentiator preamplifier for photogenerated signals. Review of Scientific Instruments, 1999, 70, 2169-2170.                                              | 1.3 | 3         |
| 44 | Low-noise front-end electronics for solid-state fluorometers. Review of Scientific Instruments, 1999, 70, 3759-3764.                                                  | 1.3 | 5         |
| 45 | <title>Self-mixing superluminescent diode optical tomography</title>. , 1999, 3749, 790.                                                                              |     | 0         |
| 46 | <title>Autofluorescence of ocular tissues: a promising diagnostic technique in ophthalmology</title>. , 1999, , .                                                     |     | 0         |
| 47 | Simple, low-cost, portable corneal fluorometer for detection of the level of diabetic retinopathy. Applied Optics, 1998, 37, 4303.                                    | 2.1 | 13        |
| 48 | Low-coherence interferometry using a self-mixing super-luminescent diode. IEEE Photonics Technology Letters, 1998, 10, 123-125.                                       | 2.5 | 20        |
| 49 | Design and performance of a new fluorometer for corneal autofluorescence measurement. , 1998, 3246, 28.                                                               |     | 1         |
| 50 | <title>Self-mixing low-coherence interferometry</title>. , 1998, 3199, 268.                                                                                           |     | 0         |
| 51 | Corneal autofluorescence in presence of diabetic retinopathy. , 1998, 3246, 22.                                                                                       |     | 4         |
| 52 | <title>Autofluorescence of ocular tissues: an update of measurement techniques for research and diagnosis</title>. , 1997, , .                                        |     | 1         |
| 53 | <title>Laser light absorption in the vitreous body after fluorescein angiography in diabetic patients</title>. , 1996, , .                                            |     | 0         |
| 54 | Vitreous laser absorption following fluorescein angiography in diabetic patients. Graefe's Archive for Clinical and Experimental Ophthalmology, 1996, 234, 488-492.   | 1.9 | 1         |

| #  | ARTICLE                                                                                                                                                                                                            | IF  | CITATIONS |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 55 | Fiber-linked interferometric displacement sensor: analysis of residual sensitivity to fiber stress. IEEE Transactions on Instrumentation and Measurement, 1996, 45, 201-208.                                       | 4.7 | 4         |
| 56 | A simple and reliable system for measuring the refractive index of liquids using a position-sensitive detector. IEEE Transactions on Instrumentation and Measurement, 1995, 44, 68-70.                             | 4.7 | 36        |
| 57 | Adaptive whole-field optical profilometry: a study of the systematic errors. IEEE Transactions on Instrumentation and Measurement, 1995, 44, 36-41.                                                                | 4.7 | 11        |
| 58 | Corneal autofluorescence in diabetic and normal eyes. International Ophthalmology, 1995, 18, 211-214.                                                                                                              | 1.4 | 9         |
| 59 | Improving the effectiveness of a tumor detection system by the use of image enhancement procedures. Bioimaging, 1995, 3, 94-101.                                                                                   | 1.3 | 0         |
| 60 | A tunable, double-wavelength heterodyne detection interferometer with frequency-locked diode-pumped Nd:YAG sources for absolute measurements. Review of Scientific Instruments, 1995, 66, 4073-4080.               | 1.3 | 10        |
| 61 | A combined distance and surface profile measurement system for industrial applications: a European project. Measurement Science and Technology, 1994, 5, 807-815.                                                  | 2.6 | 8         |
| 62 | Simple digital technique for efficient frequency locking of diode-pumped Nd:YAG lasers. Electronics Letters, 1994, 30, 47-49.                                                                                      | 1.0 | 3         |
| 63 | Comparative analysis of low-pass filters for the demodulation of projected gratings in 3-D adaptive profilometry. IEEE Transactions on Instrumentation and Measurement, 1994, 43, 50-55.                           | 4.7 | 9         |
| 64 | A novel, adaptive system for 3-D optical profilometry using a liquid crystal light projector. IEEE Transactions on Instrumentation and Measurement, 1994, 43, 558-566.                                             | 4.7 | 55        |
| 65 | Optical interferometer using a high-birefringence optical fiber. IEEE Transactions on Instrumentation and Measurement, 1993, 42, 231-233.                                                                          | 4.7 | 1         |
| 66 | <title>Flexible measuring machine based on a double interferometer</title>. , 1993, 2066, 139.                                                                                                                     |     | 0         |
| 67 | <title>Development and characterization of a liquid-crystal projection unit for adaptive structured illumination</title>. , 1992, 1614, 78.                                                                        |     | 4         |
| 68 | Light-induced transmission changes in liquid crystal displays for adaptive pattern projection. IEEE Transactions on Instrumentation and Measurement, 1992, 41, 629-632.                                            | 4.7 | 5         |
| 69 | Characteristics of Optical Breakdown in Ultrapure Water Induced by Nanosecond Nd: YAG Laser Pulses. Europhysics Letters, 1991, 15, 69-73.                                                                          | 2.0 | 13        |
| 70 | Study of laser damage to injection-molded diffractive intraocular lenses. Journal of Cataract and Refractive Surgery, 1991, 17, 639-641.                                                                           | 1.5 | 6         |
| 71 | An optical self-calibrating technique for the dynamic characterization of PZT's. IEEE Transactions on Instrumentation and Measurement, 1991, 40, 851-854.                                                          | 4.7 | 5         |
| 72 | AGE-RELATED CHANGES IN THE FLUORESCENCE OF MELANIN and LIPOFUSCIN GRANULES OF THE RETINAL PIGMENT EPITHELIUM: A TIME-RESOLVED FLUORESCENCE SPECTROSCOPY STUDY. Photochemistry and Photobiology, 1991, 54, 247-253. | 2.5 | 65        |

| #  | ARTICLE                                                                                                                                                                                                                                                                                | IF  | CITATIONS |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 73 | Spatial and temporal dynamics of light attenuation and transmission by plasmas induced in liquids by nanosecond Nd:YAG laser pulses. <i>Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics</i> , 1991, 13, 87-98. | 0.4 | 7         |
| 74 | A high-frequency sinusoidal phase-modulation interferometer using an electro-optic modulator: Development and evaluation. <i>Review of Scientific Instruments</i> , 1991, 62, 2579-2583.                                                                                               | 1.3 | 25        |
| 75 | Nd:YAG Laser Ophthalmic Microsurgery. , 1991, , 85-140.                                                                                                                                                                                                                                |     | 1         |
| 76 | Comprehensive study of damage to intraocular lenses by single and multiple nanosecond neodymium: YAG laser pulses. <i>Journal of Cataract and Refractive Surgery</i> , 1990, 16, 603-610.                                                                                              | 1.5 | 13        |
| 77 | Age-related changes in the morphology, absorption and fluorescence of melanosomes and lipofuscin granules of the retinal pigment epithelium. <i>Vision Research</i> , 1990, 30, 1291-1303.                                                                                             | 1.4 | 214       |
| 78 | Time-resolved fluorescence spectroscopy of the retinal pigment epithelium: age-related studies. <i>IEEE Journal of Quantum Electronics</i> , 1990, 26, 2218-2225.                                                                                                                      | 1.9 | 19        |
| 79 | Time-resolved fluorescence spectroscopy with programmable gating. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 1989, 3, 129.                                                                                                                                         | 3.8 | 1         |
| 80 | Online dimensional analysis of surfaces using optical filtering and elaboration techniques in the Fourier plane. <i>IEEE Transactions on Instrumentation and Measurement</i> , 1989, 38, 811-814.                                                                                      | 4.7 | 4         |
| 81 | Ocular fluorometry: Principles, fluorophores, instrumentation, and clinical applications. <i>Lasers in Surgery and Medicine</i> , 1989, 9, 515-532.                                                                                                                                    | 2.1 | 26        |
| 82 | A system for dimensional analysis of mechanical objects by means of optical filtering. <i>Sensors and Actuators</i> , 1989, 20, 233-237.                                                                                                                                               | 1.7 | 0         |
| 83 | Nd: YAG laser photodisruption: an experimental investigation on shielding and multiple plasma formation. <i>Graefe's Archive for Clinical and Experimental Ophthalmology</i> , 1988, 226, 362-366.                                                                                     | 1.9 | 14        |
| 84 | Study of the temporal and spatial dynamics of plasmas induced in liquids by nanosecond Nd:YAG laser pulses 1: Analysis of the plasma starting times. <i>Applied Optics</i> , 1988, 27, 3661.                                                                                           | 2.1 | 136       |
| 85 | Study of the temporal and spatial dynamics of plasmas induced in liquids by nanosecond Nd:YAG laser pulses 2: Plasma luminescence and shielding. <i>Applied Optics</i> , 1988, 27, 3669.                                                                                               | 2.1 | 43        |
| 86 | Intraocular lens damage from Nd:YAG laser pulses focused in the vitreous Part I: Q-switched lasers. <i>Journal of Cataract and Refractive Surgery</i> , 1988, 14, 526-529.                                                                                                             | 1.5 | 11        |
| 87 | A system for time-resolved laser fluorescence spectroscopy with multiple picosecond gating. <i>Review of Scientific Instruments</i> , 1988, 59, 2254-2259.                                                                                                                             | 1.3 | 38        |
| 88 | Observation of Transient Response of Nb Superconducting Thin Film to a Single-Heavy-Ion Impact. <i>Europhysics Letters</i> , 1988, 6, 425-430.                                                                                                                                         | 2.0 | 9         |
| 89 | Lifetimes of Plasmas Induced in Liquids and Ocular Media by Single Nd:YAG Laser Pulses of Different Duration. <i>Europhysics Letters</i> , 1988, 6, 407-412.                                                                                                                           | 2.0 | 70        |
| 90 | A study on the possible involvement of nonlinear mechanism of light absorption by HpD with Nd: YAG laser. <i>Lasers in Surgery and Medicine</i> , 1986, 6, 323-327.                                                                                                                    | 2.1 | 17        |

| #   | ARTICLE                                                                                                                                                                                                                               | IF  | CITATIONS |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 91  | A high-efficiency, compact Nd-YAG laser for eye microsurgery. Lasers in Medical Science, 1986, 1, 19-24.                                                                                                                              | 2.1 | 1         |
| 92  | A 580 nm emission in haematoporphyrin-derivative solution and in treated cells. Lasers in Medical Science, 1986, 1, 33-39.                                                                                                            | 2.1 | 12        |
| 93  | Fluorometric Studies Of Hematoporphyrin-Derivative In Cells And Solution. Proceedings of SPIE, 1985, , .                                                                                                                              | 0.8 | 0         |
| 94  | An oscillator-amplifier distributed feedback dye laser system, pumped by a single TEA N2 laser. Applied Physics B, Photophysics and Laser Chemistry, 1985, 37, 35-39.                                                                 | 1.5 | 7         |
| 95  | Laser fluorescent microirradiation: Two examples of application to biology. a. Study of the functional state of chromatin; b. Study of hematoporphyrin derivative (HpD) in cells. Journal of Soviet Laser Research, 1985, 6, 368-376. | 0.2 | 0         |
| 96  | The Effect of Back-Reflection on the Performances of N2-Lasers. Japanese Journal of Applied Physics, 1985, 24, 1320-1323.                                                                                                             | 1.5 | 0         |
| 97  | The rod image: a new method for the calculation of pump efficiency in reflecting close-coupled cavities. Applied Optics, 1985, 24, 3746.                                                                                              | 2.1 | 10        |
| 98  | Pump cavities for compact pulsed Nd:YAG lasers: a comparative study. Applied Optics, 1985, 24, 3752.                                                                                                                                  | 2.1 | 17        |
| 99  | Subnanosecond waveform analysis in the presence of fading by means of a random sampling technique. Review of Scientific Instruments, 1984, 55, 365-370.                                                                               | 1.3 | 1         |
| 100 | Thyratron-switched N2atmospheric-pressure oscillator, low-pressure amplifier laser system. Review of Scientific Instruments, 1984, 55, 477-481.                                                                                       | 1.3 | 13        |
| 101 | The time-dependent behaviour of Hematoporphyrin-Derivative in saline: A study of spectral modifications. Chemico-Biological Interactions, 1984, 49, 1-11.                                                                             | 4.0 | 14        |
| 102 | Time-resolved fluorescence spectroscopy of hematoporphyrin-derivative in human lymphocytes. Chemico-Biological Interactions, 1984, 50, 135-141.                                                                                       | 4.0 | 12        |
| 103 | Spectroscopic studies of hematoporphyrin-derivative in culture medium. Chemico-Biological Interactions, 1984, 50, 153-157.                                                                                                            | 4.0 | 12        |
| 104 | In situ evaluation of the functional state of chromatin by means of Quinacrine Mustard staining and time-resolved fluorescence microscopy. The Histochemical Journal, 1984, 16, 223-233.                                              | 0.6 | 15        |
| 105 | Automatic measurement of fluctuations of optical sources by means of a microprocessor-controlled apparatus. Journal of Physics E: Scientific Instruments, 1982, 15, 240-242.                                                          | 0.7 | 1         |
| 106 | Laser-biophysics. Applied Physics B: Lasers and Optics, 1982, 28, 240-245.                                                                                                                                                            | 2.2 | 0         |
| 107 | Dual time scale measurements of the multiexponential fluorescence decay of quinacrine mustard. Optics Communications, 1981, 37, 20-22.                                                                                                | 2.1 | 4         |
| 108 | Subnanosecond fluorescence waveforms measurements with a dual time-scale microprocessor-controlled averager. Review of Scientific Instruments, 1981, 52, 1671-1675.                                                                   | 1.3 | 7         |

| #   | ARTICLE                                                                                                                          | IF  | CITATIONS |
|-----|----------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 109 | A microprocessor-controlled apparatus for the measurement of pulsed spectra. Optical and Quantum Electronics, 1980, 12, 193-197. | 3.3 | 2         |