# Maddalena Mantovani

List of Publications by Year
in descending order



| 102 | 7,901 | 201575 27 | 48277 88 |
|---|---|---|---|
| papers | citations | h-index | g-index |

| 102 | 102 | 102 | 5463 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Advanced Virgo: a second-generation interferometric gravitational wave detector. Classical and Quantum Gravity, 2015, 32, 024001. | 1.5 | 2,530 |
| 2 | Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. Living Reviews in Relativity, 2018, 21, 3. | 8.2 | 808 |
| 3 | Sensitivity studies for third-generation gravitational wave observatories. Classical and Quantum Gravity, 2011, 28, 094013. | 1.5 | 644 |
| 4 | Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. Living Reviews in Relativity, 2020, 23, 3. | 8.2 | 447 |
| 5 | Prospects for Observing and Localizing Gravitational-Wave Transients with Advanced LIGO and Advanced Virgo. Living Reviews in Relativity, 2016, 19, 1. | 8.2 | 427 |
| 6 | Virgo: a laser interferometer to detect gravitational waves. Journal of Instrumentation, 2012, 7, P03012-P03012. | 0.5 | 257 |
| 7 | Increasing the Astrophysical Reach of the Advanced Virgo Detector via the Application of Squeezed Vacuum States of Light. Physical Review Letters, 2019, 123, 231108. | 2.9 | 254 |
| 8 | Characterization of transient noise in Advanced LIGO relevant to gravitational wave signal GW150914. Classical and Quantum Gravity, 2016, 33, 134001. | 1.5 | 225 |
| 9 | The Virgo status. Classical and Quantum Gravity, 2006, 23, S635-S642. | 1.5 | 179 |
| 10 | Status of the Virgo project. Classical and Quantum Gravity, 2011, 28, 114002. | 1.5 | 171 |
| 11 | Status of Virgo. Classical and Quantum Gravity, 2008, 25, 114045. | 1.5 | 148 |
| 12 | A Standard Siren Measurement of the Hubble Constant from GW170817 without the Electromagnetic Counterpart. Astrophysical Journal Letters, 2019, 871, L13. | 3.0 | 145 |
| 13 | A Gravitational-wave Measurement of the Hubble Constant Following the Second Observing Run of Advanced LIGO and Virgo. Astrophysical Journal, 2021, 909, 218. | 1.6 | 144 |
| 14 | Virgo status. Classical and Quantum Gravity, 2008, 25, 184001. | 1.5 | 116 |
| 15 | SEARCH FOR GRAVITATIONAL-WAVE INSPIRAL SIGNALS ASSOCIATED WITH SHORT GAMMA-RAY BURSTS DURING LIGO'S FIFTH AND VIRGO'S FIRST SCIENCE RUN. Astrophysical Journal, 2010, 715, 1453-1461. | 1.6 | 90 |
| 16 | Calibration and sensitivity of the Virgo detector during its second science run. Classical and Quantum Gravity, 2011, 28, 025005. | 1.5 | 85 |
| 17 | The status of VIRGO. Classical and Quantum Gravity, 2006, 23, S63-S69. | 1.5 | 83 |
| 18 | The basic physics of the binary black hole merger GW150914. Annalen Der Physik, 2017, 529, 1600209. | 0.9 | 69 |

| # | Article | IF | Citations |
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| 19 | Measurements of Superattenuator seismic isolation by Virgo interferometer. Astroparticle Physics, 2010, 33, 182-189. | 1.9 | 62 |
| 20 | Noise from scattered light in Virgo's second science run data. Classical and Quantum Gravity, 2010, 27, 194011. | 1.5 | 59 |
| 21 | Status of Virgo detector. Classical and Quantum Gravity, 2007, 24, S381-S388. | 1.5 | 56 |
| 22 | Status of Virgo. Classical and Quantum Gravity, 2005, 22, S869-S880. | 1.5 | 54 |
| 23 | Search for Gravitational Waves Associated with Gamma-Ray Bursts during the First Advanced LIGO Observing Run and Implications for the Origin of GRB 150906B. Astrophysical Journal, 2017, 841, 89. | 1.6 | 52 |
| 24 | Calibration of advanced Virgo and reconstruction of the gravitational wave signal h ( t) Tj ETQq0 0 0 rgBT /Overlock 10 Tf | 1.5 | 41 |
| 25 | Quantum Backaction on Kg-Scale Mirrors: Observation of Radiation Pressure Noise in the Advanced Virgo Detector. Physical Review Letters, 2020, 125, 131101. | 2.9 | 35 |
| 26 | The Virgo 3 km interferometer for gravitational wave detection. Journal of Optics, 2008, 10, 064009. | 1.5 | 31 |
| 27 | Status and perspectives of the Virgo gravitational wave detector. Journal of Physics: Conference Series, 2010, 203, 012074. | 0.3 | 29 |
| 28 | Search for gravitational waves associated with GRB 050915a using the Virgo detector. Classical and Quantum Gravity, 2008, 25, 225001. | 1.5 | 28 |
| 29 | The Seismic Superattenuators of the Virgo Gravitational Waves Interferometer. Journal of Low Frequency Noise Vibration and Active Control, 2011, 30, 63-79. | 1.3 | 28 |
| 30 | The Advanced Virgo detector. Journal of Physics: Conference Series, 2015, 610, 012014. | 0.3 | 27 |
| 31 | The variable finesse locking technique. Classical and Quantum Gravity, 2006, 23, S85-S89. | 1.5 | 22 |
| 32 | Virgo upgrade investigations. Journal of Physics: Conference Series, 2006, 32, 223-229. | 0.3 | 21 |
| 33 | Vacuum-compatible low-loss Faraday isolator for efficient squeezed-light injection in laser-interferometer-based gravitational-wave detectors. Applied Optics, 2018, 57, 9705. | 0.9 | 21 |
| 34 | First joint observation by the underground gravitational-wave detector KAGRA with GEO 600. Progress of Theoretical and Experimental Physics, 2022, 2022, . | 1.8 | 20 |
| 35 | Experimental evidence for an optical spring. Physical Review A, 2006, 74, . | 1.0 | 19 |
| 36 | Gravitational waves by gamma-ray bursts and the Virgo detector: the case of GRB 050915a. Classical and Quantum Gravity, 2007, 24, S671-S679. | 1.5 | 19 |

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| 37 | Using the etalon effect for in situ balancing of the Advanced Virgo arm cavities. Classical and Quantum Gravity, 2009, 26, 025005. | 1.5 | 17 |
| 38 | One hertz seismic attenuation for low frequency gravitational waves interferometers. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 554, 546-554. | 0.7 | 16 |
| 39 | The Virgo automatic alignment system. Classical and Quantum Gravity, 2006, 23, S91-S101. | 1.5 | 16 |
| 40 | Lock acquisition of the Virgo gravitational wave detector. Astroparticle Physics, 2008, 30, 29-38. | 1.9 | 16 |
| 41 | Gravitational wave burst search in the Virgo C7 data. Classical and Quantum Gravity, 2009, 26, 085009. | 1.5 | 16 |
| 42 | VIRGO: a large interferometer for gravitational wave detection started its first scientific run. Journal of Physics: Conference Series, 2008, 120, 032007. | 0.3 | 15 |
| 43 | Interferometer Sensing and Control for the Advanced Virgo Experiment in the O3 Scientific Run. Galaxies, 2020, 8, 85. | 1.1 | 15 |
| 44 | Coincidence analysis between periodic source candidates in C6 and C7 Virgo data. Classical and Quantum Gravity, 2007, 24, S491-S499. | 1.5 | 13 |
| 45 | Measurement of the optical parameters of the Virgo interferometer. Applied Optics, 2007, 46, 3466. | 2.1 | 13 |
| 46 | First joint gravitational wave search by the AURIGAâ€“EXPLORERâ€“NAUTILUSâ€“Virgo Collaboration. Classical and Quantum Gravity, 2008, 25, 205007. | 1.5 | 13 |
| 47 | Performance of the Virgo interferometer longitudinal control system during the second science run. Astroparticle Physics, 2011, 34, 521-527. | 1.9 | 13 |
| 48 | The NoEMi (Noise Frequency Event Miner) framework. Journal of Physics: Conference Series, 2012, 363, 012037. | 0.3 | 12 |
| 49 | Automatic Alignment for the first science run of the Virgo interferometer. Astroparticle Physics, 2010, 33, 131-139. | 1.9 | 11 |
| 50 | Central heating radius of curvature correction (CHRoCC) for use in large scale gravitational wave interferometers. Classical and Quantum Gravity, 2013, 30, 055017. | 1.5 | 11 |
| 51 | The Virgo Detector. AIP Conference Proceedings, 2005, , . | 0.3 | 10 |
| 52 | Improving the timing precision for inspiral signals found by interferometric gravitational wave detectors. Classical and Quantum Gravity, 2007, 24, S617-S625. | 1.5 | 10 |
| 53 | Cleaning the Virgo sampled data for the search of periodic sources of gravitational waves. Classical and Quantum Gravity, 2009, 26, 204002. | 1.5 | 10 |
| 54 | Reconstruction of the gravitational wave signal h ( t ) during the Virgo science runs and independent validation with a photon calibrator. Classical and Quantum Gravity, 2014, 31, 165013. | 1.5 | 10 |

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| 55 | Analysis of noise lines in the Virgo C7 data. Classical and Quantum Gravity, 2007, 24, S433-S443. | 1.5 | 9 |
| 56 | Status of coalescing binaries search activities in Virgo. Classical and Quantum Gravity, 2007, 24, 5767-5775. | 1.5 | 9 |
| 57 | Status of Advanced Virgo. EPJ Web of Conferences, 2018, 182, 02003. | 0.1 | 9 |
| 58 | The advanced Virgo longitudinal control system for the O2 observing run. Astroparticle Physics, 2020, 116, 102386. | 1.9 | 9 |
| 59 | Advanced Virgo Status. Journal of Physics: Conference Series, 2020, 1342, 012010. | 0.3 | 9 |
| 60 | Design and prototype tests of a seismic attenuation system for the advanced-LIGO output mode cleaner. Classical and Quantum Gravity, 2006, 23, S111-S118. | 1.5 | 8 |
| 61 | Extended-time-scale creep measurement on Maraging cantilever blade springs. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2008, 593, 597-607. | 0.7 | 8 |
| 62 | Noise studies during the first Virgo science run and after. Classical and Quantum Gravity, 2008, 25, 184003. | 1.5 | 8 |
| 63 | Laser with an in-loop relative frequency stability of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>1.0</mml:mn><mml:mo>Ã—</mml:mo><mml:msup><mml:mrow><mml:mn>10</mml:mn></mml:mrow><mml:mn></mml:mn></mml:msup></mml:mrow></mml:math> a 100-ms time scale for gravitational-wave detection. Physical Review A, 2009, 79, . | 1.0 | 8 |
| 64 | Virgo calibration and reconstruction of the gravitationnal wave strain during VSR1. Journal of Physics: Conference Series, 2010, 228, 012015. | 0.3 | 8 |
| 65 | A state observer for the Virgo inverted pendulum. Review of Scientific Instruments, 2011, 82, 094502. | 0.6 | 8 |
| 66 | NAP: a tool for noise data analysis. Application to Virgo engineering runs. Classical and Quantum Gravity, 2005, 22, S1041-S1049. | 1.5 | 7 |
| 67 | The status of coalescing binaries search code in Virgo, and the analysis of C5 data. Classical and Quantum Gravity, 2006, 23, S187-S196. | 1.5 | 7 |
| 68 | The Virgo interferometric gravitational antenna. Optics and Lasers in Engineering, 2007, 45, 478-487. | 2.0 | 7 |
| 69 | The Real-Time Distributed Control of the Virgo Interferometric Detector of Gravitational Waves. IEEE Transactions on Nuclear Science, 2008, 55, 302-310. | 1.2 | 7 |
| 70 | Sub-nanoradiant beam pointing monitoring and stabilization system for controlling input beam jitter in gravitational wave interferometers. Applied Optics, 2014, 53, 2906. | 0.9 | 7 |
| 71 | A simple line detection algorithm applied to Virgo data. Classical and Quantum Gravity, 2005, 22, S1189-S1196. | 1.5 | 6 |
| 72 | Automatic Alignment system during the second science run of the Virgo interferometer. Astroparticle Physics, 2011, 34, 327-332. | 1.9 | 6 |

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| 73 | Status of the Advanced Virgo gravitational wave detector. International Journal of Modern Physics A, 2017, 32, 1744003. | 0.5 | 6 |
| 74 | New algorithm for the Guided Lock technique for a high-Finesse optical cavity. Astroparticle Physics, 2020, 117, 102405. | 1.9 | 6 |
| 75 | Testing the detection pipelines for inspirals with Virgo commissioning run C4 data. Classical and Quantum Gravity, 2005, 22, S1139-S1148. | 1.5 | 5 |
| 76 | Length Sensing and Control in the Virgo Gravitational Wave Interferometer. IEEE Transactions on Instrumentation and Measurement, 2006, 55, 1985-1995. | 2.4 | 5 |
| 77 | Data Acquisition System of the Virgo Gravitational Waves Interferometric Detector. IEEE Transactions on Nuclear Science, 2008, 55, 225-232. | 1.2 | 5 |
| 78 | Characterization of the Virgo seismic environment. Classical and Quantum Gravity, 2012, 29, 025005. | 1.5 | 5 |
| 79 | A first study of environmental noise coupling to the Virgo interferometer. Classical and Quantum Gravity, 2005, 22, S1069-S1077. | 1.5 | 4 |
| 80 | Environmental noise studies in Virgo. Journal of Physics: Conference Series, 2006, 32, 80-88. | 0.3 | 4 |
| 81 | Data quality studies for burst analysis of Virgo data acquired during Weekly Science Runs. Classical and Quantum Gravity, 2007, 24, S415-S422. | 1.5 | 4 |
| 82 | Control of the laser frequency of the Virgo gravitational wave interferometer with an in-loop relative frequency stability of 1.0 Ã— 10â˜’21 on a 100 ms time scale. , 2009, , . | | 4 |
| 83 | THE VIRGO INTERFEROMETER FOR GRAVITATIONAL WAVE DETECTION. International Journal of Modern Physics D, 2011, 20, 2075-2079. | 0.9 | 4 |
| 84 | Status of Virgo. Journal of Physics: Conference Series, 2006, 39, 32-35. | 0.3 | 3 |
| 85 | Testing Virgo burst detection tools on commissioning run data. Classical and Quantum Gravity, 2006, 23, S197-S205. | 1.5 | 3 |
| 86 | Evaluating mirror alignment systems using the optical sensing matrix. Journal of Physics: Conference Series, 2008, 122, 012026. | 0.3 | 3 |
| 87 | Temperature Control for an Intra-Mirror Etalon in Interferometric Gravitational Wave Detector Fabryâ€“Perot Cavities. Galaxies, 2020, 8, 80. | 1.1 | 3 |
| 88 | Development of a Frequency Tunable Green Laser Source for Advanced Virgo+ Gravitational Waves Detector. Galaxies, 2020, 8, 87. | 1.1 | 3 |
| 89 | Experimental upper limit on the estimated thermal noise at low frequencies in a gravitational wave detector. Physical Review D, 2007, 76, . | 1.6 | 2 |
| 90 | Geophysical noise in the virgo gravitational antenna. Measurement Techniques, 2009, 52, 111-116. | 0.2 | 2 |

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| 91 | Noise monitor tools and their application to Virgo data. Journal of Physics: Conference Series, 2012, 363, 012024. | 0.3 | 2 |
| 92 | Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. , 2018, 21, 1. | | 2 |
| 93 | Methods of gravitational wave detection in the VIRGO Interferometer. , 2007, , . | | 1 |
| 94 | The Real-time Distributed Control of the Virgo Interferometric Detector of Gravitational Waves. , 2007, , . | | 1 |
| 95 | Status of the commissioning of the Virgo interferometer. , 2012, , . | | 1 |
| 96 | A parallel in-time analysis system for Virgo.. Journal of Physics: Conference Series, 2006, 32, 35-43. | 0.3 | 0 |
| 97 | Normal/independent noise in VIRGO data. Classical and Quantum Gravity, 2006, 23, S829-S836. | 1.5 | 0 |
| 98 | Data Acquisition System of the Virgo Gravitational Waves Interferometric Detector. , 2007, , . | | 0 |
| 99 | A cross-correlation method to search for gravitational wave bursts with AURIGA and Virgo. Classical and Quantum Gravity, 2008, 25, 114046. | 1.5 | 0 |
| 100 | Tools for noise characterization in Virgo. Journal of Physics: Conference Series, 2010, 243, 012004. | 0.3 | 0 |
| 101 | VIRGO DATA ANALYSIS FOR C6 AND C7 ENGINEERING RUNS. , 2008, , . | | 0 |
| 102 | THE STATUS OF THE VIRGO GRAVITATIONAL WAVE DETECTOR. , 2008, , . | | 0 |