# Maddalena Mantovani

## List of Publications by Year in Descending Order



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|---|---|---|---|
| 94 papers | 5,321 citations | 25 h-index | 72 g-index |
| 102 ext. papers | 6,631 ext. citations | 3.6 avg, IF | 2.58 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 94 | A Gravitational-wave Measurement of the Hubble Constant Following the Second Observing Run of Advanced LIGO and Virgo. *Astrophysical Journal*, **2021**, 909, 218 | 4.7 | 46 |
| 93 | Advanced Virgo Status. *Journal of Physics: Conference Series*, **2020**, 1342, 012010 | 0.3 | 8 |
| 92 | New algorithm for the Guided Lock technique for a high-Finesse optical cavity. *Astroparticle Physics*, **2020**, 117, 102405 | 2.4 | 5 |
| 91 | Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. *Living Reviews in Relativity*, **2020**, 23, 3 | 32.5 | 144 |
| 90 | Quantum Backaction on kg-Scale Mirrors: Observation of Radiation Pressure Noise in the Advanced Virgo Detector. *Physical Review Letters*, **2020**, 125, 131101 | 7.4 | 17 |
| 89 | Temperature Control for an Intra-Mirror Etalon in Interferometric Gravitational Wave Detector FabryPerot Cavities. *Galaxies*, **2020**, 8, 80 | 2 | 0 |
| 88 | Interferometer Sensing and Control for the Advanced Virgo Experiment in the O3 Scientific Run. *Galaxies*, **2020**, 8, 85 | 2 | 7 |
| 87 | Development of a Frequency Tunable Green Laser Source for Advanced Virgo+ Gravitational Waves Detector. *Galaxies*, **2020**, 8, 87 | 2 | 1 |
| 86 | The advanced Virgo longitudinal control system for the O2 observing run. *Astroparticle Physics*, **2020**, 116, 102386 | 2.4 | 7 |
| 85 | A Standard Siren Measurement of the Hubble Constant from GW170817 without the Electromagnetic Counterpart. *Astrophysical Journal Letters*, **2019**, 871, L13 | 7.9 | 77 |
| 84 | Increasing the Astrophysical Reach of the Advanced Virgo Detector via the Application of Squeezed Vacuum States of Light. *Physical Review Letters*, **2019**, 123, 231108 | 7.4 | 134 |
| 83 | Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. *Living Reviews in Relativity*, **2018**, 21, 3 | 32.5 | 543 |
| 82 | Vacuum-compatible low-loss Faraday isolator for efficient squeezed-light injection in laser-interferometer-based gravitational-wave detectors. *Applied Optics*, **2018**, 57, 9705-9713 | 1.7 | 13 |
| 81 | Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA **2018**, 21, 1 | | 2 |
| 80 | Calibration of advanced Virgo and reconstruction of the gravitational wave signal h ( t ) during the observing run O2. *Classical and Quantum Gravity*, **2018**, 35, 205004 | 3.3 | 35 |
| 79 | Status of Advanced Virgo. *EPJ Web of Conferences*, **2018**, 182, 02003 | 0.3 | 4 |
| 78 | The basic physics of the binary black hole merger GW150914. *Annalen Der Physik*, **2017**, 529, 1600209 | 2.6 | 45 |

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| 77 | 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 | 4.7 | 42 |
| 76 | Status of the Advanced Virgo gravitational wave detector. *International Journal of Modern Physics A* , **2017**, 32, 1744003 | 1.2 | 5 |
| 75 | Characterization of transient noise in Advanced LIGO relevant to gravitational wave signal GW150914. *Classical and Quantum Gravity*, **2016**, 33, | 3.3 | 155 |
| 74 | Prospects for Observing and Localizing Gravitational-Wave Transients with Advanced LIGO and Advanced Virgo. *Living Reviews in Relativity*, **2016**, 19, 1 | 32.5 | 393 |
| 73 | The Advanced Virgo detector. *Journal of Physics: Conference Series*, **2015**, 610, 012014 | 0.3 | 18 |
| 72 | Advanced Virgo: a second-generation interferometric gravitational wave detector. *Classical and Quantum Gravity*, **2015**, 32, 024001 | 3.3 | 1567 |
| 71 | Sub-nanoradiant beam pointing monitoring and stabilization system for controlling input beam jitter in gravitational wave interferometers. *Applied Optics*, **2014**, 53, 2906-16 | 1.7 | 6 |
| 70 | 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 | 3.3 | 8 |
| 69 | Central heating radius of curvature correction (CHRoCC) for use in large scale gravitational wave interferometers. *Classical and Quantum Gravity*, **2013**, 30, 055017 | 3.3 | 9 |
| 68 | Virgo: a laser interferometer to detect gravitational waves. *Journal of Instrumentation*, **2012**, 7, P03012-P03012 | 1 | 212 |
| 67 | Characterization of the Virgo seismic environment. *Classical and Quantum Gravity*, **2012**, 29, 025005 | 3.3 | 4 |
| 66 | The NoEMi (Noise Frequency Event Miner) framework. *Journal of Physics: Conference Series*, **2012**, 363, 012037 | 0.3 | 10 |
| 65 | THE VIRGO INTERFEROMETER FOR GRAVITATIONAL WAVE DETECTION. *International Journal of Modern Physics D*, **2011**, 20, 2075-2079 | 2.2 | 4 |
| 64 | The Seismic Superattenuators of the Virgo Gravitational Waves Interferometer. *Journal of Low Frequency Noise Vibration and Active Control*, **2011**, 30, 63-79 | 1.5 | 19 |
| 63 | Automatic Alignment system during the second science run of the Virgo interferometer. *Astroparticle Physics*, **2011**, 34, 327-332 | 2.4 | 5 |
| 62 | Performance of the Virgo interferometer longitudinal control system during the second science run. *Astroparticle Physics*, **2011**, 34, 521-527 | 2.4 | 10 |
| 61 | Sensitivity studies for third-generation gravitational wave observatories. *Classical and Quantum Gravity*, **2011**, 28, 094013 | 3.3 | 382 |
| 60 | Calibration and sensitivity of the Virgo detector during its second science run. *Classical and Quantum Gravity*, **2011**, 28, 025005 | 3.3 | 83 |

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| 59 | A state observer for the Virgo inverted pendulum. *Review of Scientific Instruments*, **2011**, 82, 094502 | 1.7 | 6 |
| 58 | Status of the Virgo project. *Classical and Quantum Gravity*, **2011**, 28, 114002 | 3.3 | 140 |
| 57 | Noise from scattered light in Virgo's second science run data. *Classical and Quantum Gravity*, **2010**, 27, 194011 | 3.3 | 31 |
| 56 | 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 | 4.7 | 79 |
| 55 | Tools for noise characterization in Virgo. *Journal of Physics: Conference Series*, **2010**, 243, 012004 | 0.3 | |
| 54 | Virgo calibration and reconstruction of the gravitationnal wave strain during VSR1. *Journal of Physics: Conference Series*, **2010**, 228, 012015 | 0.3 | 7 |
| 53 | Status and perspectives of the Virgo gravitational wave detector. *Journal of Physics: Conference Series*, **2010**, 203, 012074 | 0.3 | 22 |
| 52 | Measurements of Superattenuator seismic isolation by Virgo interferometer. *Astroparticle Physics*, **2010**, 33, 182-189 | 2.4 | 54 |
| 51 | Automatic Alignment for the first science run of the Virgo interferometer. *Astroparticle Physics*, **2010**, 33, 131-139 | 2.4 | 10 |
| 50 | **2009**, | | 1 |
| 49 | Laser with an in-loop relative frequency stability of 1.0×10⁻²¹ on a 100-ms time scale for gravitational-wave detection. *Physical Review A*, **2009**, 79, | 2.6 | 6 |
| 48 | Cleaning the Virgo sampled data for the search of periodic sources of gravitational waves. *Classical and Quantum Gravity*, **2009**, 26, 204002 | 3.3 | 5 |
| 47 | Gravitational wave burst search in the Virgo C7 data. *Classical and Quantum Gravity*, **2009**, 26, 085009 | 3.3 | 15 |
| 46 | Geophysical noise in the virgo gravitational antenna. *Measurement Techniques*, **2009**, 52, 111-116 | 0.4 | 2 |
| 45 | Using the etalon effect for in situ balancing of the Advanced Virgo arm cavities. *Classical and Quantum Gravity*, **2009**, 26, 025005 | 3.3 | 17 |
| 44 | The Real-Time Distributed Control of the Virgo Interferometric Detector of Gravitational Waves. *IEEE Transactions on Nuclear Science*, **2008**, 55, 302-310 | 1.7 | 4 |
| 43 | First joint gravitational wave search by the AURIGA-EXPLORER-NAUTILUS-Virgo Collaboration. *Classical and Quantum Gravity*, **2008**, 25, 205007 | 3.3 | 11 |
| 42 | The Virgo 3 km interferometer for gravitational wave detection. *Journal of Optics*, **2008**, 10, 064009 | | 29 |

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| 41 | A cross-correlation method to search for gravitational wave bursts with AURIGA and Virgo. *Classical and Quantum Gravity*, **2008**, 25, 114046 | 3.3 | |
| 40 | Search for gravitational waves associated with GRB 050915a using the Virgo detector. *Classical and Quantum Gravity*, **2008**, 25, 225001 | 3.3 | 23 |
| 39 | Status of Virgo. *Classical and Quantum Gravity*, **2008**, 25, 114045 | 3.3 | 115 |
| 38 | Virgo status. *Classical and Quantum Gravity*, **2008**, 25, 184001 | 3.3 | 110 |
| 37 | Noise studies during the first Virgo science run and after. *Classical and Quantum Gravity*, **2008**, 25, 184003 | 3.3 | 6 |
| 36 | Data Acquisition System of the Virgo Gravitational Waves Interferometric Detector. *IEEE Transactions on Nuclear Science*, **2008**, 55, 225-232 | 1.7 | 3 |
| 35 | Evaluating mirror alignment systems using the optical sensing matrix. *Journal of Physics: Conference Series*, **2008**, 122, 012026 | 0.3 | 3 |
| 34 | VIRGO: a large interferometer for gravitational wave detection started its first scientific run. *Journal of Physics: Conference Series*, **2008**, 120, 032007 | 0.3 | 15 |
| 33 | Lock acquisition of the Virgo gravitational wave detector. *Astroparticle Physics*, **2008**, 30, 29-38 | 2.4 | 13 |
| 32 | 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 | 1.2 | 7 |
| 31 | Experimental upper limit on the estimated thermal noise at low frequencies in a gravitational wave detector. *Physical Review D*, **2007**, 76, | 4.9 | 1 |
| 30 | The Virgo interferometric gravitational antenna. *Optics and Lasers in Engineering*, **2007**, 45, 478-487 | 4.6 | 7 |
| 29 | Improving the timing precision for inspiral signals found by interferometric gravitational wave detectors. *Classical and Quantum Gravity*, **2007**, 24, S617-S625 | 3.3 | 10 |
| 28 | Gravitational waves by gamma-ray bursts and the Virgo detector: the case of GRB 050915a. *Classical and Quantum Gravity*, **2007**, 24, S671-S679 | 3.3 | 16 |
| 27 | Coincidence analysis between periodic source candidates in C6 and C7 Virgo data. *Classical and Quantum Gravity*, **2007**, 24, S491-S499 | 3.3 | 13 |
| 26 | Analysis of noise lines in the Virgo C7 data. *Classical and Quantum Gravity*, **2007**, 24, S433-S443 | 3.3 | 8 |
| 25 | Data quality studies for burst analysis of Virgo data acquired during Weekly Science Runs. *Classical and Quantum Gravity*, **2007**, 24, S415-S422 | 3.3 | 4 |
| 24 | Status of Virgo detector. *Classical and Quantum Gravity*, **2007**, 24, S381-S388 | 3.3 | 51 |

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| 23 | Status of coalescing binaries search activities in Virgo. *Classical and Quantum Gravity*, **2007**, 24, 5767-5775 | 3.3 | 8 |
| 22 | Measurement of the optical parameters of the Virgo interferometer. *Applied Optics*, **2007**, 46, 3466-84 | 1.7 | 12 |
| 21 | Length Sensing and Control in the Virgo Gravitational Wave Interferometer. *IEEE Transactions on Instrumentation and Measurement*, **2006**, 55, 1985-1995 | 5.2 | 3 |
| 20 | The status of coalescing binaries search code in Virgo, and the analysis of C5 data. *Classical and Quantum Gravity*, **2006**, 23, S187-S196 | 3.3 | 6 |
| 19 | Normal/independent noise in VIRGO data. *Classical and Quantum Gravity*, **2006**, 23, S829-S836 | 3.3 | |
| 18 | Design and prototype tests of a seismic attenuation system for the advanced-LIGO output mode cleaner. *Classical and Quantum Gravity*, **2006**, 23, S111-S118 | 3.3 | 8 |
| 17 | The variable finesse locking technique. *Classical and Quantum Gravity*, **2006**, 23, S85-S89 | 3.3 | 19 |
| 16 | The Virgo automatic alignment system. *Classical and Quantum Gravity*, **2006**, 23, S91-S101 | 3.3 | 13 |
| 15 | The status of VIRGO. *Classical and Quantum Gravity*, **2006**, 23, S63-S69 | 3.3 | 79 |
| 14 | Testing Virgo burst detection tools on commissioning run data. *Classical and Quantum Gravity*, **2006** , 23, S197-S205 | 3.3 | 3 |
| 13 | The Virgo status. *Classical and Quantum Gravity*, **2006**, 23, S635-S642 | 3.3 | 166 |
| 12 | Experimental evidence for an optical spring. *Physical Review A*, **2006**, 74, | 2.6 | 17 |
| 11 | Status of Virgo. *Journal of Physics: Conference Series*, **2006**, 39, 32-35 | 0.3 | 2 |
| 10 | Virgo upgrade investigations. *Journal of Physics: Conference Series*, **2006**, 32, 223-229 | 0.3 | 19 |
| 9 | A parallel in-time analysis system for Virgo.. *Journal of Physics: Conference Series*, **2006**, 32, 35-43 | 0.3 | |
| 8 | Environmental noise studies in Virgo. *Journal of Physics: Conference Series*, **2006**, 32, 80-88 | 0.3 | 3 |
| 7 | 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 | 1.2 | 15 |
| 6 | The Virgo Detector. *AIP Conference Proceedings*, **2005**, | 0 | 10 |

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| 5 | A simple line detection algorithm applied to Virgo data. *Classical and Quantum Gravity*, **2005**, 22, S1189-S1196 | 3.3 | 5 |
| 4 | A first study of environmental noise coupling to the Virgo interferometer. *Classical and Quantum Gravity*, **2005**, 22, S1069-S1077 | 3.3 | 4 |
| 3 | Status of Virgo. *Classical and Quantum Gravity*, **2005**, 22, S869-S880 | 3.3 | 52 |
| 2 | NAP: a tool for noise data analysis. Application to Virgo engineering runs. *Classical and Quantum Gravity*, **2005**, 22, S1041-S1049 | 3.3 | 5 |
| 1 | Testing the detection pipelines for inspirals with Virgo commissioning run C4 data. *Classical and Quantum Gravity*, **2005**, 22, S1139-S1148 | 3.3 | 5 |