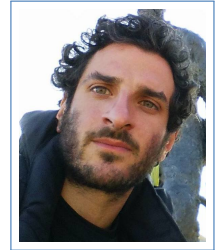


Andrea Maselli

Curriculum Vitae

Piazzale Aldo Moro 5
00185 Rome, Italy



Personal Information

Full Name **Andrea Maselli**
Nationality **Italy**

Present position

Oct 2018 - **Research associate**, *Physics department*, Sapienza University of Rome, Rome (IT).
present

Past positions

- Oct 2017 - **Postdoctoral researcher**, *Multidisciplinary Center for Astrophysics CENTRA*, Instituto Superior Tecnico, Lisbon (PT).
Sep 2018
- Oct 2015 - **Postdoctoral researcher**, *Institute of Astronomy and Astrophysics*, Eberhard Karls University of Tübingen, Tübingen (DEU).
Sep 2017
- Jan 2015 - **Postdoctoral researcher**, *Center for Relativistic Astrophysics*, School of Physics, Georgia Institute of Technology, Atlanta, Georgia (USA).
Jun 2015
- May 2014 - **Postdoctoral researcher**, *Physics department*, Sapienza University of Rome, Rome (IT).
Dec 2014
- May 2013 - **VESF postdoctoral fellow**, *Physics department*, Sapienza University of Rome, Rome (IT).
Apr 2014
- Nov 2012 - **Postdoctoral fellow**, *Institute of Cosmology and Gravitation*, University of Portsmouth, Portsmouth (UK).
Apr 2013

Education

- 2018 **National Scientific Habilitation**, "*Abilitazione Scientifica Nazionale*", for the position of Associate Professor in Theoretical Physics, ("settoe 02/A2").
- 2009 - 2013 **Ph.D. Degree**, *Theoretical Physics*, Sapienza University of Rome, Thesis title: "Tidal interaction in compact binary systems".
Advisor: Prof. Valeria Ferrari
Main arguments: tidal interactions in black hole/neutron star systems, gravitational emission from relativistic sources, post-Newtonian approximation.

- 2006 - 2009 **Master Degree**, *Theoretical Physics*, Sapienza University of Rome, *110/110 cum laude*, Thesis title: "Monte Carlo Markov Chains in cosmology".
Advisor: Dr. Alessandro Melchiorri
Main arguments: stochastic methods for multi-parameters data analysis, Cosmic Microwave Background radiation, primordial nucleosynthesis.
- 2003 - 2006 **Bachelor Degree**, *Physics and Astrophysics*, Sapienza University of Rome, *110/110*, Thesis title: "CMB anisotropies and polarization".
Advisor: Dr. Alessandro Melchiorri
Main arguments: Cosmic Microwave Background radiation, characterisation of temperature and polarisation anisotropies.

Awards, Honors, Fellowships & Grants

- 2019 **Honorable mention** of the Gravity Research Foundation Essay Competition for "*Love in Extrema Ratio*" ([link](#)).
- 2018 3-years postdoctoral **RTDA fellowship** for associate researcher, for the project *Theory and phenomenology of gravitational waves*, Amaldi Research Center, Sapienza University of Rome.
- 2014 **Best Contribution by a Young Scientist**, at the 3rd Forum session on "Gravitational Wave Astrophysics", Sant Cugat Forum on Astrophysics 2014, San Cugat (E).
- 2013 **VESF postdoctoral fellowship for theoretical research on Gravitational Wave Detection 2012** (25K euro), EGO ([link](#)).
- 2012 **Fellowship for scientific improving activity in a foreign country** (7.8K euro), Sapienza University of Rome.

Funding ID

Principal Investigator of the following finished projects

- 2019 **Workshop funded**, "*Lost in Gravity*"; 8000 euro, funded by the European Cost action GWverse (CA16104).
- 2019 **Short Term Visit funded**, 1400 euro, funded by the European Cost action GWverse (CA16104), to collaborate with the School of Mathematical Sciences of the Nottingham University, Nottingham (UK).
- 2017 **Workshop funded**, "*Neutron Stars in Lisbon*"; 5000 euro, funded by the European Cost action Pharos (CA16214).
- 2017 **Short Term Visit funded**, 1000 euro, funded by the European Cost action Pharos (CA16214), to collaborate with the Theoretical Astrophysics Group at the University of Tübingen, Tübingen (DEU).
- 2013 - 2014 **VESF fellowship**, "*Tidal interactions in compact binaries and the equation of state of nuclear matter*"; 25K euro, funded by **EGO**, the European Gravitational Observatory.
- 2012 - 2013 **Fellowship for scientific improving activity in a foreign country**, "*Relativistic compact binary sources and gravitational waves*"; 7.8K euro, funded by "La Sapienza University of Rome, to collaborate with the Institute of Cosmology and Gravitation, Portsmouth (UK).

I am collaborating (or have collaborated) with the following projects

- 2019 **PRACE-18**, ID: *ob34tu*, 30 million CPU-hours.
- 2016 - 2019 **Marie Skłodowska-Curie Research and Innovation Staff Exchange**, (*RISE*) Action, "Strong Gravity and High-Energy Physics" [H2020-MSCA-RISE-2015], 160K euro.
Team Member
- 2012 - 2015 **MARIE CURIE-FP7-PEOPLE-2011-IRSES**, *International Research Staff Exchange Scheme (IRSES)*, "Numerical Relativity and High Energy Physics" [H2020-MSCA-RISE-2015], 160K euro.
Team Member

Experience

Lectures of university courses

- Mar 2019 - current **Lecturer for "Relativistic Perturbations of Compact Objects" [PhD course]**, *Sapienza University of Rome*, Rome, (IT).
- Mar 2019 - current **Lecturer for "Complex analysis" [undergrad course]**, *Sapienza University of Rome*, Rome, (IT).
Course taught with Prof. Paolo Santini
- Apr 2017 - Jul 2017 **Lecturer for "Black Hole Physics" [grad course]**, *Eberhard Karls University of Tübingen*, Tübingen, (DEU).
- Apr 2017 - Jul 2017 **Teaching assistant for "Astronomy and Astrophysics" [undergrad course]**, *Eberhard Karls University of Tübingen*, Tübingen, (DEU).
Course taught by Prof. Andrea Santangelo
- Mar 2016 - Jul 2017 **Teaching assistant for the experimental course of applied Physics [undergrad course]**, *Eberhard Karls University of Tübingen*, Tübingen, (DEU).
Course directed by Prof. Torsten Hehl
- Oct 2015 - Feb 2017 **Teaching assistant for "Introduction to General Relativity" [grad course]**, *Eberhard Karls University of Tübingen*, Tübingen, (DEU).
Course taught by Prof. Kostas Kokkotas
- Apr 2016 - Jul 2016 **Teaching assistant for "Astronomy and Astrophysics" [undergrad course]**, *Eberhard Karls University of Tübingen*, Tübingen, (DEU).
Course taught by Prof. Wilhelm Kley
- Oct 2015 - Feb 2016 **Teaching assistant for "Numerical Methods for Physics and Astrophysics" [undergrad course]**, *Eberhard Karls University of Tübingen*, Tübingen, (DEU).
Course taught by Prof. Kostas Kokkotas

Lectures at PhD School

- Mar 2019 Tutor for the course **Gravitational waves and compact binaries**, *Theoretical Aspects of Astroparticle Physics, Cosmology and Gravitation*, Galileo Galilei Institute for Theoretical Physics, Florence (IT).
- Sep 2018 Lecturer for the course **Compact Objects**, *9th School of Astrophysics and Gravitation*, Instituto Superior Tecnico, Lisbon (PT).
- Aug 2018 Lecturer for the course **Strong Gravity**, *ICTS Summer School on Gravitational-Wave Astronomy*, ICTS, Bangalore (IN).

Training experience

I am supervisor of the following students.

- 2020-current Advisor of **Susanna Barsanti, Giulio Danella, Viola Derenzis [master]**, *Sapienza University of Rome*.
- 2019-current Co-Advisor of **Massimo Vaglio, Andrea Sabbatucci [PhD(s)]**, *Sapienza University of Rome*.
- 2019-current Advisor of **Irene Fabbri [master]**, *Sapienza University of Rome*.
- 2019-current Advisor of **Danilo di Ludovico [bachelor]**, *Sapienza University of Rome*.
- 2018-current Co-Advisor of **Gabriel Piovano [PhD]**, *Sapienza University of Rome*.
- 2017-current Advisor of **Margherita Fasano [PhD]**, *Sapienza University of Rome*.

I have been supervisor of the following students.

- 2019 Advisor of **Simone D'onofrio, Andrea Falzetti [bachelor(s)]**, *Sapienza University of Rome*.
- 2017-2018 Co-Advisor of **Goncalo Castro [master]**, Instituto Superior Tecnico; **Giuseppe Gnocchi [master]**, *Sapienza University of Rome*.
- 2017 Co-Advisor of **Verena Krall [bachelor]**, *Eberhard Karls University of Tübingen*.

Visits

- Jun 2019 **Visiting Researcher**, *University of Nottingham*, Nottingham, (UK).
host: Prof. Thomas Sotiriou
- Feb and Sep 2019 **Visiting Researcher**, *John Hopkins University*, Baltimore, MD, (USA).
host: Prof. Emanuele Berti
- May 2018 **Visiting Researcher**, *Eberhard Karls University of Tübingen*, Tübingen, (DEU).
host: Prof. Kostas Kokkotas
- Feb 2018 **Visiting Researcher**, *Kindai University*, Osaka, (Jap).
host: Prof. Akihiro Ishibashi
- Sep 2014 **Visiting Researcher**, *The University of Mississippi*, Oxford, MS (USA).
host: Prof. Emanuele Berti

Institutional duties at Sapienza

- Since 2018 **Co-organizer for the lectures of Cattedra Fermi**, at the physics department of *Sapienza University*, ([link](#)).

Major research collaborations and membership of scientific societies

- 2019-present **Member of the International Society of General Relativity & Gravitation**.
- 2018-present **Member of the 3G Science Team**.
- 2018-present **Full Member of the LISA Consortium**.
- 2018-present **Member of Portuguese society of Relativity and Gravitation**.
- 2018-present **INFN Associated**, *Istituto Nazionale di Fisica Nucleare*, (Italian National Institute of Nuclear Physics).
- 2017-present **Member of the eXTP Science Team**.

Workshop and meeting organization

- 24-26 Jun 20 **Strong Gravity Beyond Workshop 2020**, Sardinia (IT), Organizing Committee.
- 10-11 Oct 19 **Neutron Star Theory Workshop**, Madrid (E), Scientific Committee.

- 28-30 Aug 19 **Lost in Gravity**, Sant Flour (FR), Organizing Committee.
 17-18 Dec 18 **XI black holes workshop**, Instituto Superior Tecnico, Lisbon (PT), Organizing Committee.
 12-13 Apr 18 **Neutron Stars in Lisbon**, Instituto Superior Tecnico, Lisbon (PT), Organizing Committee.

Conferences, Seminars

Chairing

- May 2019 **Physics & Astrophysics at the Extreme (PAX 19)**, *EGO, Pisa (IT)*, Session: Compact Binary Coalescence (chair together with S. Vitale, J. Veitch and T. Dent).
 Aug 2017 **eXtreme Matter meets eXtreme Gravity**, *Montana State University, Bozeman (USA)*, Session: New directions and exotic scenarios (chair together with Tanja Hinderer).

Invited seminars

- Dec 2019 **The Power of Love**, University of Ferrara, Ferrara (IT).
 Jun 2019 **Testing the black hole paradigm with gravitational wave binary events**, Max Planck Institute for Gravitational Physics, Potsdam (DEU).
 Feb 2019 **A heated Love for ECO**, John Hopkins University, Baltimore (USA).
 Jun 2018 **Gravitational wave phenomenology of exotic compact objects**, Albert Einstein Institute, Hannover (DEU).
 May 2018 **Beyond black holes (exotic compact objects)**, "*Numerical relativity beyond General Relativity*", Benasque (ESP).
 Mar 2018 **Solving the relativistic inverse stellar problem through gravitational waves observation of binary neutron stars**, "*Problemi Attuali di Fisica Teorica 2018*", Vietri sul Mare (IT).
 Mar 2018 **Staring at the black hole horizon with gravitational wave observations**, Department of Physics, Kindai University, Osaka (JPN).
 Jan 2018 **Gravitational Waves as a probe of the equation of state of nuclear matter**, Department of Physics, Sapienza University of Rome, Rome (IT).
 Jan 2018 **Observational signatures of exotic compact objects**, Instituto de astrofisica e ciencias de espaco, Lisbon (PT).
 Dec 2017 **Challenging the black holes scenario with gravitational wave observations**, School of Physics and Astronomy, University of Nottingham, Nottingham (UK).
 Oct 2017 **The strong gravity regime in the gravitational wave era**, Scuola Internazionale Superiore Studi Avanzati SISSA, Trieste (IT).
 May 2017 **Strong field tests of General Relativity in the black holes arena**, Department of physics, Aristotle University of Thessaloniki, Thessaloniki (GR).
 Mar 2017 **Signals from the horizon: General Relativity and the strong field gravity regime**, Institute of Theoretical Physics, Goethe Universitat, Frankfurt (DEU).
 Sep 2016 **Constraining modified theories of gravity using stochastic gravitational wave background**, "*Gravitational waves in modified gravity theories*", National Technical University of Athens, Athens (GR).
 Aug 2016 **Fab Four Neutron Stars**, "*First Tusur Cosmological Conference*", Tomsk State University of Control and Radioelectronics, Tomsk (RUS).
 May 2016 **Gravitational waves: a new window onto the high energetic Universe**, Workgroup astronomy meeting, University of Stuttgart, Stuttgart (DEU).

- Mar 2016 **Relativistic tidal effects in non standard Kerr space-time**, *"Problemi Attuali di Fisica Teorica 2016"*, Vietri sul Mare (IT).
- Jun 2015 **Quasi periodic oscillations of accreting black holes and the strong field gravity regime**, Instituto de Ciencias Fisicas, UNAM, Mexico City (MEX).
- Dec 2014 **Gravitational waves and the physics of compact objects: from gamma-ray bursts to I-Love-Q**, Online seminar for the Astrophysics group, School of Physics, University of Melbourne (AUS).
- Sep 2014 **Gravitational waves and the physics of compact objects: from gamma-ray bursts to I-Love-Q**, Center for Relativistic Astrophysics, Georgia Institute of Technology, Atlanta (USA).
- Apr 2014 **Low latency search for gravitational waves from BH-NS binaries in coincidence with short gamma-ray bursts**, *"Problemi Attuali di Fisica Teorica 2014"*, Vietri sul Mare (IT).
- Feb 2014 **Triggering Short Gamma-Ray Bursts search with gravitational wave events**, *"SFB-Transregio Meeting"*, Tübingen (DEU).
- Jul 2013 **Tidal effects in BH-NS and NS-NS binaries**, *"Stochastic Gravitational Wave Background in the Advanced Detector Era"*, Cote d'Azur, Nice (FR).
- Mar 2013 **I Love Q (forever)**, Institute of Cosmology and Gravitation, Portsmouth (UK).

Conferences, Workshop and Meetings

- Jan 2020 **"A parametrized ringdown approach for black-hole spectroscopy of spinning black holes"**, *"Gravitational Waves, Black Holes and Fundamental Physics"*, SISSA, Trieste (IT), [Poster].
- Oct 2019 **"Quasi-periodic oscillations as probe of the neutron star equation of state"**, *"Future of X-ray Timing"*, Amsterdam, (NL).
- Jul 2019 **"Gravitational waves in massive gravity: waveforms from extreme-mass-ratio mergers"**, *"22nd International Conference on General Relativity and Gravitation"*, Valencia, (ES).
- Feb 2019 **"From multi-band observations to the nuclear matter equation of state"**, *"EPS Conference on Gravitation 2019"*, Sapienza University of Rome, Rome (IT).
- Jan 2019 **"Gravitational waves in massive gravity theories: constraints from extreme-mass-ratio mergers"**, *"Gravitational Waves, Black Holes and Fundamental Physics"*, Athens (GR).
- Sep 2018 **Exotic compact objects and their gravitational-wave signatures**, *"TeonGrav Meeting 2018"*, Sapienza University of Rome, Rome (IT).
- Jan 2018 **To be a black hole or not to be a black hole**, *"Gravity@Malta"*, University of Malta, Valletta (MT).
- Dec 2017 **Gravitational wave signatures of black hole mimickers**, *"X Black Holes Workshop"*, Aveiro University, Aveiro (PT).
- Nov 2017 **Exotic Compact Objects in the Strong Field Regime**, *Multidisciplinary Centre for Astrophysics (CENTRA)*, Lisbon, (PT).
- Jun 2017 **A Montecarlo approach for the relativistic inverse stellar problem**, *"Bridging Nuclear and Gravitational Physics: the Dense Matter Equation of State"*, ECT, Trento, (IT).
- Feb 2017 **Testing strong-field gravity with quasi periodic oscillations**, *"High Throughput X-ray Astronomy in the eXTP Era conference"*, Rome, (IT).
- Sep 2016 **Binary BH gravitational wave background as probe of alternative theories of gravity**, *"NEB-17 Recent Developments in Gravity"*, Mykonos, (GR).
- Sep 2015 **From macro to micro: universal properties of neutron stars**, *"The Modern Physics of Compact Stars and Relativistic Gravity 2015"*, Yerevan State University, Yerevan (AM).

- Jul 2015 **Interacting vacuum-energy in a Post-Friedmann expanding Universe**, "14th Marcel Grossman Congress 2015", Sapienza University of Rome, Rome (IT).
- Jul 2015 **Testing the strong field gravity regime with QPOs observations**, "14th Marcel Grossman Congress 2015", Sapienza University of Rome, Rome (IT).
- Jul 2015 **Slowly-rotating black hole solutions in Horndeski theory**, "IVth NRHEP Network Meeting", Sapienza University of Rome, Rome (IT).
- Mar 2015 **Testing the strong field gravity regime with QPOs astrophysical observations**, *Center for Relativistic Astrophysics weekly meeting*, Atlanta (USA).
- Nov 2014 **Testing Gravity with QPOs of Black holes: the case of Einstein-Dilaton-Gauss-Bonnet theory**, "5th LOFT Consortium meeting", Rome (IT).
- Apr 2014 **Coincidence searches of gravitational waves and short gamma-ray bursts**, "San Cugat Forum on Astrophysics", San Cugat, Barcelona (ESP).
- Jan 2014 **Universal relations for Neutron Stars: Gravitational Waves and Short Gamma-ray Bursts**, "TeonGrav Meeting 2014", Sapienza University of Rome, Rome (IT).
- Oct 2013 **Black hole-neutron star mergers**, "Einstein Telescope Meeting 2013", Albert Einstein Institute, Hannover (GE).
- Jul 2013 **I Love Q forever**, "An International Workshop. Neutron stars: Nuclear Physics, Gravitational Waves and Astronomy", University of Surrey, Guildford (UK).
- Jul 2012 **Post-Newtonian-Affine tidal interactions**, "13th Marcel Grossman Congress 2012", Stockholm (S).
- Mar 2012 **Post-Newtonian-Affine tidal interactions**, "Problemi Attuali di Fisica Teorica 2012", Vietri sul Mare (IT).
- Jun 2011 **Tidal interactions in compact binary systems**, "5th Nuclear Physics School", Otranto (IT).

Publications

Regular papers

- gr-qc/
2004.02654 **[R37]** Gabriel Piovano, **Andrea Maselli**, Paolo Pani, "Extreme mass ratio inspirals with spinning secondary: a detailed study of equatorial circular motion", Submitted to Phys. Rev. D, 2020.
- gr-qc/
2003.08448 **[R36]** Gabriel Piovano, **Andrea Maselli**, Paolo Pani, "Model independent tests of the Kerr bound with extreme mass ratio inspirals", Submitted to Phys. Rev. Lett., 2020.
- gr-qc/
1910.12893 **[R35]** **Andrea Maselli**, Paolo Pani, Leonardo Gualtieri, Emanuele Berti, "Parametrized ringdown spin expansion coefficients: a data-analysis framework for black-hole spectroscopy with multiple events", Phys. Rev. D 101, 024043, 2020.
- astro-ph/
1910.00016 **[R34]** **Andrea Maselli**, Stefania Marassi, Marica Branchesi, "White dwarf binaries and deci-Hz gravitational wave observations: from the Hubble constant to the supernova astrophysics", Astronomy & Astrophysics 635, A120, 2020.
- astro-ph/
1909.05870 **[R33¹]** Vitor Cardoso, **Andrea Maselli**, "Constraints on the astrophysical environment of binaries with gravitational-wave observations", Submitted to ApJ, 2019.
- gr-qc/
1906.05155 **[R32]** Ryan McManus, Caio Macedo, Masashi Kimura, Emanuele Berti, **Andrea Maselli**, Vitor Cardoso, "Parametrized black hole quasinormal ringdown. II. Coupled equations and quadratic corrections for nonrotating black holes", Phys. Rev. D 100, 044061, 2019.

¹The authorship of this paper is in alphabetical order

- gr-qc/1905.13460 **[R31]** Giuseppe Gnocchi, **Andrea Maselli**, Tiziano Abdelsalhin, Giuseppe Giacobbo, Michela Mapelli, "*Bounding Alternative Theories of Gravity with Multi-Band GW Observations*", Phys. Rev. D 100 064024, 2019.
- astro-ph/1905.05769 **[R30]** **Andrea Maselli** Chris Kouvaris, Kostas Kokkotas, "*The Photon Spectrum of Asymmetric Dark Stars*", Submitted to Phys. Rev. D, 2019.
- astro-ph/1905.05616 **[R29]** **Andrea Maselli**, George Pappas, Paolo Pani, Leonardo Gualtieri, Sara Motta, Valeria Ferrari, Luigi Stella, "*Can we constraint the neutron-star equation of state from QPO observations?*", Submitted to ApJ, 2019.
- gr-qc/1905.03947 **[R28]** Paolo Pani, **Andrea Maselli**, "*Love in Extrema Ratio*", International Journal of Modern Physics D, 101142, 2019.
Honorable mention of the Gravity Research Foundation Essay Competition
- astro-ph/1902.05078 **[R27]** Margherita Fasano, Tiziano Abdelsalhin, **Andrea Maselli**, Valeria Ferrari, "*Constraining the neutron star equation of state using multi-band independent measurements of radii and tidal deformabilities*", Phys. Rev. Lett. 123 141101, 2019.
- gr-qc/1901.01265 **[R26¹]** Vitor Cardoso, Masashi Kimura, **Andrea Maselli**, Emanuele Berti, Caio Macedo, Ryan McManus, "*Parametrized black hole quasinormal ringdown: Decoupled equations for nonrotating black holes*", Phys. Rev. D 99 104077, 2019.
- gr-qc/1811.03689 **[R25]** **Andrea Maselli**, Paolo Pani, Vitor Cardoso, Tiziano Abdelsalhin, Leonardo Gualtieri, Valeria Ferrari, "*From micro to macro and back: probing quantum structures at the horizon scale with gravitational waves*", Class. Quant. Grav. 36 167001, 2019.
- gr-qc/1809.00673 **[R24¹]** Vitor Cardoso, Goncalo Castro, **Andrea Maselli**, "*Gravitational waves in massive gravity theories: waveforms, fluxes and constraints from extreme-mass-ratio mergers*", Phys. Rev. Lett. 121 251103, 2018.
- gr-qc/1808.08962 **[R23¹]** Vitor Cardoso, Masashi Kimura, **Andrea Maselli**, Leonardo Senatore, "*Black holes in EFT extensions of GR*", Phys. Rev. Lett. 121 251105, 2018.
- gr-qc/1712.01303 **[R22]** Tiziano Abdelsalhin, **Andrea Maselli**, Valeria Ferrari, "*Solving the relativistic inverse stellar problem though gravitational waves observation of binary neutron stars*", Phys. Rev. D 97 084014, 2018.
- gr-qc/1708.02217 **[R21]** **Andrea Maselli**, Sebastian H. Völkel, Kostas D. Kokkotas, "*Parameter estimation of gravitational wave echoes from exotic compact objects*", Phys. Rev. D 96 064065, 2017.
- astro-ph/1704.07286 **[R20]** **Andrea Maselli**, Pantelis Pnigouras, Niklas Grønlund Nielsen, Chris Kouvaris, Kostas Kokkotas, "*Dark stars: gravitational and electromagnetic observables*", Phys. Rev. D 96 023005, 2017.
- gr-qc/1703.10612 **[R19]** **Andrea Maselli**, Paolo Pani, Vitor Cardoso, Tiziano Abdelsalhin, Leonardo Gualtieri, Valeria Ferrari, "*Probing Planckian corrections at the horizon scale with LISA binaries*", Phys. Rev. Lett. 120 081101, 2018.
Editor suggestion in PRL
- astro-ph/1703.01472 **[R18]** **Andrea Maselli**, Paolo Pani, Roberto Cotesta, Leonardo Gualtieri, Luigi Stella, Valeria Ferrari, "*Geodesic models of quasi-periodic-oscillations as probes of quadratic gravity*", ApJ 843 1, 2017.
- gr-qc/1702.01110 **[R17]** **Andrea Maselli**, Kostas Kokkotas, Pablo Laguna, "*Observing binary black hole ringdowns by advanced gravitational wave detectors*", Phys. Rev. D 95 104026, 2017.
- gr-qc/1701.01116 **[R16¹]** Vitor Cardoso, Edgardo Franzin, **Andrea Maselli**, Paolo Pani, Guilherme Raposo, "*Testing strong-field gravity with tidal Love numbers*", Phys. Rev. D 95 084014, 2017.
Editor suggestion in PRD
- astro-ph/1612.00038 **[R15]** Nicola Franchini, Paolo Pani, **Andrea Maselli**, Leonardo Gualtieri, Carlos A R Herdeiro, Eugen Radu, Valeria Ferrari, "*Constraining Black Holes with Light Boson Hair and Boson Stars using Quasi Periodic Oscillations*", Phys. Rev. D 95 124025, 2017.

- gr-qc/1606.04996 [R14] **Andrea Maselli**, Stefania Marassi, Valeria Ferrari, Kostas Kokkotas, Raffaella Schneider, "Constraining modified theories of gravity with gravitational wave stochastic background", *Phys. Rev. Lett.* 117 091102, 2016.
- gr-qc/1603.04876 [R13] **Andrea Maselli**, Hector O. Silva, Masato Minamitsuji, Emanuele Berti, "Neutron stars in Horndeski gravity", *Phys. Rev. D* 93 124056, 2016.
- gr-qc/1602.01031 [R12] **Andrea Maselli**, Kostas Kokkotas, Pablo Laguna, "Relativistic tidal effects in non-standard Kerr spacetime", *Phys. Rev. D* 93 064075, 2016.
- gr-qc/1508.03044 [R11] **Andrea Maselli**, Hector O. Silva, Masato Minamitsuji, Emanuele Berti, "Slowly rotating black hole solutions in Horndeski's theory", *Phys. Rev. D* 92 104049, 2015.
- gr-qc/1507.00680 [R10] **Andrea Maselli**, Paolo Pani, Leonardo Gualtieri, Valeria Ferrari, "Rotating black holes in Einstein-Dilaton-Gauss-Bonnet gravity with finite coupling", *Phys. Rev. D* 92 083014, 2015.
- gr-qc/1503.07365 [R9] Paolo Pani, Leonardo Gualtieri, **Andrea Maselli**, Valeria Ferrari, "Tidal deformations of a spinning compact object", *Phys. Rev. D* 92 024010, 2015.
- gr-qc/1502.02985 [R8] Irene Milillo, Daniele Bertacca, Marco Bruni, **Andrea Maselli**, "The missing link: a non-linear post-Friedmann framework from small to large scales", *Phys. Rev. D* 92 023519, 2015.
- astro-ph/1412.3473 [R7] **Andrea Maselli**, Leonardo Gualtieri, Paolo Pani, Luigi Stella, Valeria Ferrari, "Testing gravity with Quasi Periodic Oscillations from accreting black holes: the case of the Einstein-Dilaton-Gauss-Bonnet theory", *ApJ* 801 115, 2015.
- gr-qc/1406.7661 [R6] Gregoire Martinon, **Andrea Maselli**, Leonardo Gualtieri, Valeria Ferrari, "Rotating proto-neutron stars: spin evolution, maximum mass and I-Love-Q relations", *Phys. Rev. D* 90 064026, 2014.
- gr-qc/1312.5133 [R5] **Andrea Maselli**, Valeria Ferrari, "Low latency search for gravitational waves from black-hole-neutron-star in coincidence with short gamma ray bursts", *Phys. Rev. D* 89 064056, 2014.
- gr-qc/1310.5381 [R4] **Andrea Maselli**, Leonardo Gualtieri, Valeria Ferrari, "Constraining the equation of state of nuclear matter with gravitational wave observations: tidal deformability and tidal disruption", *Phys. Rev. D* 88 104040, 2013.
- gr-qc/1304.2052 [R3] **Andrea Maselli**, Vitor Cardoso, Valeria Ferrari, Leonardo Gualtieri, Paolo Pani, "Equation-of-state-independent relations in neutron stars", *Phys. Rev. D* 88 023007, 2013.
- gr-qc/1205.7006 [R2] **Andrea Maselli**, Leonardo Gualtieri, Francesco Pannarale, Valeria Ferrari, "On the validity of the adiabatic approximation in compact binary inspirals", *Phys. Rev. D* 86 044032, 2012.
- gr-qc/1111.6607 [R1¹] Valeria Ferrari, Leonardo Gualtieri, **Andrea Maselli**, "Tidal interaction in compact binaries: a post-Newtonian affine framework", *Phys. Rev. D* 85 044045, 2012.

Other publications

- gr-qc/2001.09793 [O3] E. Berti *et al*, "Prospects for Fundamental Physics with LISA", 2020.
- gr-qc/1903.09221 [O2] B. S. Sathyaprakash *et al*, "Extreme Gravity and Fundamental Physics", 2019.
- gr-qc/1806.05195 [O1] L. Barack *et al*, "Black holes, gravitational waves and fundamental physics: a roadmap", White Paper for the COST action "Gravitational Waves, Black Holes, and Fundamental Physics", *Classical and Quantum Gravity* 36 14, 2018.

Proceedings

- [P7] Paolo Pani, Leonardo Gualtieri, **Andrea Maselli**, Valeria Ferrari, "*Recent progress on the tidal deformability of spinning compact objects*", Proceeding of the 14th Marcel Grossman Congress, Rome (IT), World Scientific Publishing, ISBN 978-981-3226-59-3, 2017.
- [P6] **Andrea Maselli**, Leonardo Gualtieri, Paolo Pani, Luigi Stella, Valeria Ferrari, "*Testing the strong field gravity regime with QPOs observations*", Proceeding of the 14th Marcel Grossman Congress, Rome (IT), World Scientific Publishing, ISBN 978-981-3226-59-3, 2017.
- [P5] Paolo Pani, Leonardo Gualtieri, **Andrea Maselli**, Valeria Ferrari, "*Recent developments in the tidal deformability of spinning compact objects*", International Journal of Modern Physics D, 1641001, 2016.
- gr-qc/
1602.05997 [P4] Hector O. Silva, **Andrea Maselli**, Masato Minamitsuji, Emanuele Berti, "*Compact objects in Horndeski gravity*", Proceeding of the III Amazonian Symposium on Physics and 5th NRHEP Network Meeting is approaching: Celebrating 100 Years of General Relativity, Belen (BR), 2015, International Journal of Modern Physics D, 1641006, 2016.
- [P3] **Andrea Maselli**, "*From macro to micro: universal properties of neutron stars*", Proceeding of the conference: The Modern Physics of Compact Stars 2015, Yerevan (AM), Proceedings of Science MPC2015, 014, 2016.
- gr-qc/
1302.5249 [P2] **Andrea Maselli**, Leonardo Gualtieri, Francesco Pannarale, Valeria Ferrari, "*On the validity of the adiabatic approximation in compact binary inspirals*", Proceeding of the 13th Marcel Grossman Meeting, Stockholm (S), World Scientific Publishing, ISBN 978-981-4612-14-2, 2015.
- gr-qc/
1405.7201 [P1] **Andrea Maselli**, Valeria Ferrari, "*Coincidence searches of gravitational waves and short gamma-ray bursts*", Proceeding of the San Cugat Forum on Astrophysics, San Cugat (E), Springer International Publishing, Astrophysics and Space Science Proceedings, 40 75-83, 2014.

Referee activity

- Since 2018 **Physical Review Letters, The Astrophysical Journal, Journal of Cosmology and Astroparticle Physics.**
- Since 2017 **General Relativity and Gravitation.**
- Since 2016 **Physical Review D, International Journal for the Modern Physics, European Physics Journal C.**
- Since 2015 **Physical Letters B.**

Outreach

- Oct 2018 **Andrea Maselli**, "*Fertilising ideas*", contribution to the project The Birth of an Idea, ([link](#)).
- Jul 2018 **Marker of the theoretical exams of IPhO2018**, *International Physics Olympiad 2018*, Lisbon, Portugal, 21-29 July.
- Sep 2012 **Andrea Maselli, Niccolo' Loreti**, "*Non si sorpassa in tunnel*", review article for the scientific magazine *Accastampato* edited by the students of the Physics Department of the University of Rome Sapienza, *Accastampato* 9, 2012 ([link](#)).

Miscellaneous

Computer skills

Programming Fortran, Mathematica, C
O.S. MacOSX, Linux, Windows
Scientific SW Mathematica, Maple, Matlab, Origin, GRtensor, Gnuplot
Other SW Latex, Office

Languages

Italian **Mother tongue**
English **Fluent**

Interests

- Biophysics
- Computer science
- Traveling
- Charity work, with 1- month voluntary working spent in Kinshasa (Democratic Republic of Congo)
- Technology
- Digital photography
- Martial arts

References

- Prof. V. Cardoso
Multidisciplinary Center for Astrophysics
Instituto Superior Tecnico
Av. Rovisco Pais, 1, 1049-001 Lisboa, Portugal
Tel: +351218419821
vitor.cardoso@tecnico.ulisboa.pt
- Prof. K. Kokkotas
Institute for Astronomy and Astrophysics (IAAT)
Eberhard Karls University of Tübingen
Auf der Morgenstelle 10, 72076 Tübingen, Germany
Tel: +49-7071-29-77685
kostas.kokkotas@uni-tuebingen.de
- Prof. P. Laguna
School of Physics
Georgia Institute of Technology
837 State Street, Atlanta, GA 30332-0430, U.S.A.
Tel: +1-404-894-8842
pablo.laguna@physics.gatech.edu
- Prof. V. Ferrari
Department of Physics
University of Rome "Sapienza"
P.le A. Moro 2, 00185 Rome, Italy
Tel: +39-06499124276
valeria.ferrari@roma1.infn.it
- Dr. Marco Bruni
Institute of Cosmology and Gravitation

University of Portsmouth Dennis Sciama Building
Burnaby Road, PO1 3FX Portsmouth, United Kingdom
Tel/fax: +44-23-9284-3136/5626
marco.bruni@port.ac.uk

- Prof. L. Stella
Rome Astronomical Observatory
Via Frascati 33, Monteporzio Catone, Rome, I-00040, Italy
Tel: +39-06-94286436
luigi.stella@oa-roma.inaf.it

Andrea Maselli