

Curriculum Vitae

Full name: Luciano Rezzolla, (ORCID): <https://orcid.org/0000-0002-1330-7103>

Date of Birth: 25 September 1967

Nationality: Italian, web site: <https://astro.uni-frankfurt.de/rezzolla>

• EDUCATION

- 1997 PhD in Astrophysics, International School for Advanced Studies (SISSA), Trieste, Italy
- 1992 Master in Physics (Laurea), Department of Physics, University of Trieste, Italy

• CURRENT POSITIONS

- 2019 – The Andrews Professor of Astronomy, Trinity College Dublin
- 2017 – Director, Institute for Theoretical Physics (ITP), Goethe University, Frankfurt, Germany
- 2013 – Chair of Theoretical Astrophysics, ITP, Goethe University, Frankfurt, Germany

• PREVIOUS POSITIONS

- 2006 – 2014 Head of Num. Relativity, Max-Planck Inst. for Gravit. Physics (AEI), Potsdam, Germany
- 2004 – 2006 Associate Professor, International School for Advanced Studies (SISSA), Trieste, Italy
- 2000 – 2003 Assistant Professor, International School for Advanced Studies (SISSA), Trieste, Italy

• FELLOWSHIPS AND AWARDS

- 2019 Awarded “*Outstanding Personality 2019*”, Frankfurt am Main City Council
- 2019 Awarded “*Breakthrough Prize 2020*” in Fundamental Physics
- 2019 Appointed “*The Andrews Professor of Astronomy*”, Trinity College Dublin (the position has been filled since 1783 by distinguished scientists, among whom Sir William Hamilton)
- 2019 Awarded *Frankfurt Physics Science Prize* (10,000 EUR), Frankfurt, Germany
- 2019 Awarded “*Premio Virtute e Conoscenza*” (Virtue and Knowledge Prize), Lecce, Italy
- 2017 Awarded *Karl Schwarzschild Prize* (7,500 EUR)
- 2016 Awarded *Outstanding Referee Prize* from the American Physical Society
- 2015 – 2019 Appointed *Senior Fellow* at the Frankfurt Institute for Advanced Studies (FIAS)
- 2014 – 2020 Awarded ERC Synergy Grant “*BlackHoleCam*”
- 2013 Max-Planck Award 2013 for Scientific Visualisation

• SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

LR has supervised 19 PhD students and 17 MSc students. Six of these PhD students have obtained professorships in Kazakhstan (Abdikamalov), Japan, (Baiotti), Italy (Barausse, Giacomazzo), The Netherlands (Mösta), and USA (Radice). LR has also supervised more than 20 postdocs, many of whom have faculty jobs in Europe (De Laurentis, Harte, Palenzuela, Porth, Sesana, Wardell, Younsi), Japan (Takami, Yoshida), Africa (Pollney), and America (Chirenti, Read).

• SCIENTIFIC MEETINGS

LR has received more than 250 invitations to speak international conferences and seminars, most of them overseas. This includes plenary talks at major events such as the Marcel Grossman meeting, the Texas Symposium and Quark Matter.

He has organized more than 20 international conferences as member of the SOC or LOC and he is regularly acting on various international advisory committees.

• INSTITUTIONAL RESPONSIBILITIES

- 2018 – Member of the Steering Committee of “PHAROS” (CA16214), COST Action
- 2017 – Director, Institute for Theoretical Physics (ITP), Frankfurt
- 2016 – 2017 Deputy Director, Institute for Theoretical Physics (ITP), Frankfurt
- 2014 – Member of the Executive Board, *Event Horizon Telescope Collaboration*
- 2012 – 2016 Chair of “*NewCompStar*” (MPS1304), COST Action
- 2007 – 2013 Member of the Executive Board, Virgo-EGO Scientific Council (VESF)
- 2007 – 2011 Co-Chair of “*CompStar*”, a Research Network of the European Science Foundation (ESF)
- 2004 – 2006 Member of the Executive Board, Italian Society of Gravity and Relativity (SIGRAV)

2002 – 2006 Director of the Computing Centre, SISSA, Italy

• REVIEWING ACTIVITIES

- 2019 Member of the Review Panel of the Portuguese FCT
- 2017 – Member of the PRACE Access Committee
- 2016 – Member of the Editorial Board, *Nature Physics*
- 2016 Member of the Selection Committee of the Italian MIUR (areas PE2 and PE9)
- 2014 – Member of the Editorial Board, *Computational Astrophysics and Cosmology*
- 2012 – Member of the Editorial Board, *Living Reviews in Computational Astrophysics*
- 2012 – 2016 Member of the Review Panel for the Canadian NSERC
- 2006 – 2012 Member of the Editorial Board, *Classical and Quantum Gravity*

Funding Agencies: I regularly serve as referee in 17 funding agencies in Europe and worldwide.

Scientific Journals: I regularly serve as referee in 19 scientific journals.

• MEMBERSHIPS OF SCIENTIFIC SOCIETIES

LR is Member of the Italian Physical Society (*SIF*; 2019), the European Physical Society (*EPS*; 2018), the German Astronomical Society (*AG*; 2017), the International Society of General Relativity and Gravitation (*ISGRG*; 2010) and the Italian Society of Gravitational Physics and Relativity (*SIGRAV*; 2004).

• RESEARCH AND ACADEMIC IMPACT

LR has published more than 210 papers on various refereed journals, many of which as Letters (23 in ApJL, 14 in PRL, and 8 in MNRAS) and about 80 papers as contributions to proceedings. The complete list can be found on the NASA/ADS server, which also reports more than 13,000 citations (with about 2200 citations in 2019 only) with *h-index* 67. Google scholar reports instead almost 15,500 citations and *h-index* 73. I have co-authored a book on "*Relativistic Hydrodynamics*" published by Oxford University Press that is universally recognised as the standard reference on this topic. Below is a selection of papers over the last ten years.

1. L. Rezzolla, L. Baiotti, B. Giacomazzo, D. Link, J.-A. Font. *Accurate evolutions of unequal-mass neutron-star binaries: properties of the torus and short SGRB engines*. CQG, 235 24 (2010) [151 citations as deduced from the NASA/ADS bibliographic server on 15.08.19].
2. B. Giacomazzo, L. Rezzolla, L. Baiotti. *Accurate evolutions of inspiralling and magnetised neutron stars: Equal-mass binaries*. PRD, 83 044014 (2011) [112 citations].
3. L. Rezzolla, B. Giacomazzo, L. Baiotti, J. Granot, C. Kouveliotou, M.-A. Aloy. *The Missing Link: Merging Neutron Stars Naturally Produce Jet-like Structures and Can Power Short Gamma-ray Bursts*. ApJL, 732 L6 (2011) [300 citations].
4. K. Takami, L. Rezzolla, L. Baiotti. *Constraining the Equation of State of Neutron Stars from Binary Mergers*. PRL, 113 091104 (2014) [131 citations].
5. H. Falcke, L. Rezzolla, *Fast radio bursts: the last sign of supramassive neutron stars* Astronomy & Astrophysics, 562, 6 (2014) [237 citations].
6. L. Baiotti, L. Rezzolla. *Binary neutron star mergers: a review of Einstein's richest laboratory*. Rep. Prog. Phys., 80 096901 (2017) [161 citations; among the most cited in Rep. Prog. Phys.].
7. Y. Mizuno, Z. Younsi, C. M. Fromm, O. Porth, M. De Laurentis, H. Olivares, H. Falcke, M. Kramer, and L. Rezzolla. *The current ability to test theories of gravity with black hole shadows*. Nature Astronomy, 2 585 (2018) [39 citations; the article featured on the front cover].
8. L. Rezzolla, E. R. Most, L. R. Weih, *Using GW Observations and Quasi-universal Relations to Constrain the Maximum Mass of Neutron Stars*. ApJL, 852 L25 (2018) [171 citations].
9. E. R. Most, L. R. Weih, L. Rezzolla, and J. Schaffner-Bielich. *New Constraints on Radii and Tidal Deformabilities of Neutron Stars from GW170817*. PRL, 120 261103 (2018) [160 citations].
10. EHTC, *First M87 Event Horizon Telescope Results. I. The Shadow of the Supermassive Black Hole*. ApJL, 875 L1 (2019) [130 citations; I was one of the three writers of this paper].

Summary. Born in Milan (Italy), LR has received his PhD in Trieste, Italy (1997). After a number of years of research in the USA, he has returned to Trieste, first as Assistant (2002) and then Associate Professor (2004) and Director of the Computing Centre (2004). He later moved to Potsdam as Head of the Numerical Relativity Division (2006) and subsequently appointed Chair of Theoretical Astrophysics at Frankfurt (2013) and Director of the Institute of Theoretical Physics (2017). He is internationally recognised as a leading figure in relativistic astrophysics, combining the mathematical rigour of general relativity with the interpretation of high-energy phenomena from astrophysical compact objects such as black holes and neutron stars.