



## Prof. Dr. MIMOZA HAFIZI

Mimoza is full professor of Astrophysics and member of Physics Department in Tirana University, Albania. Her research and papers she wrote concern Gamma Ray Bursts and the Discovery of Exoplanets by the method Gravitational Microlensing. She works in close cooperation with Astrophysics Institute of Paris, France and Lecce University, Italy. Mimoza received her doctorate degree at Paris 7 University, France, for the work on “Scalar Complex Fields in Gaussian Approximation. Boson Stars”.

She taught in Albania, France and Italy. She is author of books on Quantum Mechanics and on Astrophysics, devoted to the students of Albanian Universities.

Mimoza has established an Astrophysical Centre in Albania for public outreach and is active in popular science communications, especially with young people.

She has written two scientific novels: “Rose Point”-2018 (winner of the National Prize for the Young Literature, 2019), concerning the discovery of exoplanets and “Blue Infinity” (2020), concerning the

infinity in science, mathematics, philosophy and literature.

She is co-author of a scientific website, TUIMP, The University in My Pocket, created by a large international team.

Mimoza is Associate Member of Academy of Sciences, Albania and Executive Director of the National Institute of Physics.

She has been for three years (1997-2000) vice-minister of Education and Science in Albania, for two years (2000-2002) General Secretary of the Presidency of Albania and for four years (2013-2017) Member of the Albanian Parliament.

### A list of the most important SCIENTIFIC PAPERS

- Mimoza Hafizi** "Precarious stars--a variety of boson stars", paper at "Int. Jour. Phys. D", Vol. 7, No. 6 (1998), pg. 975-987;
- Mimoza Hafizi** "The Gaussian approximation for interacting charged scalar fields", paper at "The European Physical Journal C", Nr. 11, (1999), pg. 181-191;
- Mimoza Hafizi**, F. de Paolis, G. Ingrosso and A. Nucita  
"Microlensing signature of a white dwarf population in the galactic halo", paper at "Int. Journ. Mod. Phys. D", Vol. 13, Num. 9, pg. 1831-1845, 2004;
- Mimoza Hafizi**, Robert Mochkovitch: "Is the time lag-luminosity relation of GRBs a consequence of the Amati relation?", paper at "Astronomy and Astrophysics" 465, 2007, pg. 67-70;
- Mimoza Hafizi**, Sonila Boçi, Robert Mochkovitch "A new consideration of the k-correction in GRBs temporal lag", published at AIP Conf. Proc. 1085 "Proceedings of the 4th International Meeting on High Energy Gamma-Ray Astronomy", pg. 601-604, (ISBN 978-0-7354-0616-2), February 2009;
- Sonila Boçi, **Mimoza Hafizi**, Robert Mochkovitch, "The lag and duration-luminosity relations of gamma-ray burst pulses", published at Astronomy & Astrophysics 519, A76, 2010;
- Mimoza Hafizi**, Sonila Boçi, Robert Mochkovitch "Spectral integration as a factor producing discrepancies between theoretic and observed GRBs spectra", published at AIP Conf. Proc. 1279 "Deciphering the Ancient Universe with Gamma-Ray Bursts", pg. 321-324, (ISBN 978-0-7354-0829-6), September 2010;
- Mimoza Hafizi**, Sonila Boçi, Robert Mochkovitch "On the duration-luminosity relation of GRB pulses during the prompt emission", published at Proceedings of Science PoS (Integral 2010) 093, April 2011;

- Mimoza Hafizi**, Sonila Boçi, Robert Mochkovitch “A test on distribution of opening angles of beamed GRBs”, published at AIP Conf. Proc. 1358 “Gamma Ray Bursts 2010”, pg. 325-328, (ISBN 978-0-7354-0916-3), 2011;
- Mimoza Hafizi**, Sonila Boçi, Robert Mochkovitch “A modified lag for better exploring correlated properties in GRBs”, published at “World Scientific”-Proceedings of the Twelfth Marcel Grossmann Meeting on General Relativity, Singapore 2011; 3 pg.
- Mimoza Hafizi**, Lindita Hamolli “About microlensing optical depth and rates for free-floating planets towards the Kepler's field of view”, published at Journal of Physics: Conference Series **354** (2012) 012006, 6 pg., doi:10.1088/1742-6596/354/1/012006;
- Mimoza Hafizi**, Sonila Boçi, Robert Mochkovitch “A review of the redshift influence on GRBs observed properties”, published at Memorie della Societa Astronomica Italiana, Suplementi-Vol. 21, proceedings of “GRBs as probes from the progenitors environment to the high redshift Universe”, pg. 202-205, 2012;
- Lindita Hamolli, **Mimoza Hafizi**, “A theoretical calculation of microlensing signatures caused by free-floating planets towards the galactic bulge”, paper at “Int. Journ. Mod. Phys. D”, Vol. 22, Num. 10, 14 pg., 2013;
- Lindita Hamolli, **Mimoza Hafizi**, Francesco De Paolis, Achile Nucita, “Estimating finite source effects in microlensing events due to free-floating planets with the Euclid survey”, paper at Advances in Astronomy, Vol. 2015, Article ID 402303, 8 pages, 2015;
- Lindita Hamolli, **Mimoza Hafizi**, Francesco De Paolis, Achille A. Nucita: “Investigating the free-floating planet mass by Euclid observations”, paper at Astrophysics and Space Science 2016 ,361(8), 1-5. DOI: 10.1007/s10509-016-2860-7;
- R. Mochkovitch, V. Heussaff, J.L. Atteia, S. Boçi and **M. Hafizi**, "A simple theory of lags in gamma-ray bursts: Comparison to observations", paper at Astronomy & Astrophysics 592, A95, 2016;
- Lindita Hamolli, Francesco De Paolis, **Mimoza Hafizi**, Achille A. Nucita, “Predictions on the detection of The free-floating planet population with K2 and Spitzer microlensing campaigns”, paper at Astrophysical Bulletin, 2017, Vol. 72, No. 1, pp. 80–89, DOI 10.1134/S1990341317030099;
- L.Amati, ..., **M. Hafizi**,..... The Transient High Energy Sky and Early Universe Surveyor (THESEUS)" Advances in Space Research, Vol. 62, Issue 1, Pg. 191-244, 2018;
- Lindita Hamolli, **Mimoza Hafizi**, Francesco De Poalis, Achille A. Nucita: “The astrometric signal of microlensing events caused by free floating planets”, paper at Astrophysics and Space Science, 2018, 365:153;
- Lindita Hamolli, **Mimoza Hafizi**, Francesco De Poalis, Achille A. Nucita, "Exploiting the IRT-THESEUS Capability to Observe Lensed Quasars" (<https://www.mdpi.com/2075-4434/9/2/35/pdf>), paper at “Galaxies” as part of the Special Issue Astrophysical Applications of Gravitational Microlensing, [https://www.mdpi.com/journal/galaxies/special\\_issues/GravitationalMicrolensing](https://www.mdpi.com/journal/galaxies/special_issues/GravitationalMicrolensing) May 2021

#### A list of the most important UNIVERSITY BOOKS

- Mimoza Hafizi** “Astrophysics Bases”, text, Shblu, august 1999;
- Mimoza Hafizi** "The Physics of the Universe", text, Infbotues, January 2009;
- Mimoza Hafizi** “Basics of Quantum Mechanics”, text, Infbotues, October 2012;