



PERSONAL INFORMATION

Josefa Montalbán Iglesias



JOB APPLIED FOR

INCARICO DI LAVORO AUTONOMO NON OCCASIONALE PER LE
ESIGENZE DEL DIPARTIMENTO DI FISICA E ASTRONOMIA

WORK EXPERIENCE

Dec 2018 – June 2023

Post-doctoral position in the framework of an ERC project

Dipartimento di Fisica e Astronomia, Università di Bologna (from July 2021) and School of Physics and Astronomy, University of Birmingham (UK)

Research project *ASTEROCHRONOMETRY*, funded by the European Research Council (P.I. Prof. Andrea Miglio)

- Activity**
- Developing, testing and applying new procedures to derive accurate properties of stellar populations in the Milky Way by exploiting the potential of individual modes of oscillation detected in solar-type oscillators by space photometric missions and in synergy with spectroscopic surveys and *Gaia* data.
 - PLATO 2.0: Activity related to my participation and leadership in Working Packages WP121120 and 127300 (evolution, stellar structure and astroseismology of low mass stars in MS and red giants) within the framework of PLATO Stellar Science Management (PSSM).

Nov 2014 – Nov 2018

“Assegno di Ricerca” in the framework of an ERC project

Dipartimento di Fisica e Astronomia, Università degli Studi di Padova

Research project *STARKEY*, funded by the European Research Council (P.I. Dr Paola Marigo)

- Activity**
- Study of pulsations of very evolved stars: Red Giants and AGB stars.
 - PLATO 2.0: Activities related with Working Packages WP121120 and 127300 (see above)
 - Lectures in Astroseismology (16h) as part of the Theoretical Astrophysics module of the Master in Astronomy

- Responsibility**
- Coordinator of the Red Giant WorkingGroup in the CoRoT project and collaboration with *Gaia*-ESO, APOGEE and GALAH-Hermes spectroscopic surveys for the follow-up of the red giants in the CoRoT fields.

Sep 2002 – Dec 2013

Fixed-term contract as “assistant”, and as “chercheur” from 2010

Institut d’Astrophysique et Géophysique, Université de Liège, Belgium

Stellar structure modelling and astroseismology as part of the preparation and data analysis of the CoRoT space mission and the NASA Kepler mission.

- Activity**
- Analysis of the uncertainties affecting the stellar models and their implications for the pulsational properties
 - Application to the study of the seismic properties of Main Sequence pulsators: the Sun, solar-type stars, γ Doradus, δ Scuti, β Cephei and “Slow Pulsator B” (SPB), single or in binary systems.
 - Study of the seismic properties of Red Giants of spectral type G and K.
 - In the field of the characterization of extra-solar planets: determination of the global parameters of the host (MS and post-MS) star, using classical observables and when available also seismic ones.

- Responsibility**
- Coordinator of the Red Giant Working Group in the CoRoT project, since December 2010.
 - Chair of the Working Package WP121120: 1-D modeling of low-mass stars, in PLATO (ESA-Cosmic Vision).
 - Chair del WP127000: Red Giants (structure models and seismology), in PLATO (ESA-Cosmic Vision).

- Jan 2002 – Jan 2003 **“Assegno di ricerca” post-doc**
INAF - Osservatorio Astronomico di Roma, Italy
Stellar modelling development project for the study of solar-type oscillations in the framework of the CoRoT mission
- Activity**
- Unified stellar models (interior and atmosphere) using the new atmosphere models of the Wien University.
 - Study of the effect of the convection treatment, FST (Full Spectrum of Turbulence) y MLT (Mixing Length Theory), on the evolution and on the global stellar parameters.
- Jan 1997 – Nov 2001 **Contrato de reincorporacion**
Instituto de Astrofísica de Canarias (IAC), Spain
Very low mass stars and brown dwarfs
- Activity**
- Study of the structure and evolution of low-mass stars and brown dwarfs.
 - Transport processes in solar type stars and application to the abundance of light elements.
 - Delivery of a database of evolutionary models of low and very low-mass stars including the non-gray atmospheres of Allard & Hauschildt, specific for cool objects.
- Nov 1995 – Jun 1996 **Post-doc Fellowship of the "Société de Secours des Amis des Sciences"**
Observatoire de Paris-Meudon, France
Solar physics, anomalies in the chemical abundances of the solar corona and in magnetically active stars.
- Activity**
- Analysis and numerical simulations of the effects of electric currents in photospherically concentrated magnetic tubes.
- Apr 1991 – Jun 1995 **PhD fellowship from IAC - INSU**
Observatoire de Paris-Meudon, France
Transport process in stellar interiors
- Activity**
- Modelling the generation of internal gravity waves at the base of the convective envelope and their propagation in the radiative layers. Study of their effect on the depletion of lithium and beryllium abundances in low-mass stars and on the neutrino flux.
- Jan 1989 – Jan 1991 **Fellowship at the Fundación Empresa Pública and subsequent employment as an engineer at the R&D Dept.**
ENOSA - Spanish public optoelectronics company
European project for image processing and artificial vision funded by CEE, Ici-ESPRIT-2640
- Activity**
- Development of image processing software for (i) thermal vision systems for military use and (ii) automation of control processes in industry.
- Nov 1986 – Nov 1988 **Tesina**
Observatorio Astronomico Nacional, section of Radioastronomy, Yebes (Spain)
Observational program at millimetric wavelengths
- Activity**
- Application of observation techniques in the millimetric bands as part of the Master's thesis dedicated to the study of the structure and physical properties of gas in star-forming regions Mon-R2

EDUCATION AND QUALIFICATIONS

- 2014 **Abilitazione Scientifica Nazionale (National Scientific Approval for the functions of professor of the second rank in Italian Universities)**
 qualification obtained in the competitive sector 02/C1, Astronomy and Astrophysics, Physics of the Earth and Planets, 2013 announcement (DDn. 161/2013), valid from February 2014 to February 2020.
- 2010 **Acknowledgement of the titre “Chercheur qualifié (niveau C)” by the Gouvernement de la Communauté Francaise de Belgique**
 evaluation of the research activity developed at the University of Liège, for transfer of qualification within the TD contract.
- 1995 **PhD in “Astrophysique et Techniques spatiales” at the University Paris-7 Denis Diderot**
 title : “Mixing in the radiative interior of low mass stars induced by gravity waves: application to the light elements abundances and to the solar neutrino flux.” Supervisor Prof. Evry Schatzman.
- 1991 **Licenciatura de grado: Tesina at the Universidad de La Laguna (Canary Islands, Spain)**
 title : “Observations at millimetric wavelengths in the giant molecular cloud Monoceros R2. Supervisor Dr. Rafael Bachiller(Observatorio Astronómico Nacional).
- 1987 **“Licenciado” in Physics, with specialisation in Astrophysics at the Universidad Complutense de Madrid**

PERSONAL SKILLS

Mother tongue Spanish

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C2	B2	B2	C1
French	C2	C2	C2	C2	C1
Italian	C2	C2	C2	C2	C1

Communication skills – excellent communication skills in several languages (ES, EN, FR, IT), as evidenced by numerous international collaborations, teaching in national and international courses/schools, and many invited lectures. References are listed in the field “Scientific productivity”.

- Organisational /managerial skills**
- Experience in managing teams on the framework of space missions or groundbase surveys
 - 4MOST (4-metre Multi-Object Spectroscopic Telescope) : Responsable, together with Dr. Marica Valentini, of the sub-survey “seismic Red Giants” in the 4MIDABLE-LR (4MOST Milky Way Disk and Bulge Low-Resolution) survey.
 - Chair of the Working Package WP121120: Grid of Stellar Models (1-D modelization of low-mass stars), in PSM, PLATO (ESA-Cosmic Vision).
 - Chair of WP127300: Constraints on MS stars (from Red Giants seismology) in PSM, PLATO (ESA-Cosmic Vision).
 - Co-investigator (CoI) of the space mission CoRoT.
 - Coordinator of the Red Giant Working Group in the space mission CoRoT.
 - Organisation and management of the international collaboration between the CoRoT mission and the spectroscopic surveys Gaia-ESO , APOGEE and GALAH-Hermes.
 - Experience in the organisation of scientific international congresses and publication of proceedings:
 - 592 WE-Heraeus Seminar. “Reconstructing the Milky Way history”: : Spectroscopic Surveys, Asteroseismology and Chemodynamical Models” , 1-5 June 2015, Bad Honnef (Germany).
 - Workshop “Asteroseismology of stellar populations in the Milky Way” , 22-26 July 2013, Seston, (Italy).
 - 40th Liège International Astrophysical Colloquium, “Ageing low mass stars: from red giants to white dwarfs”, July 9-13 2012, Liège, (Belgium).
 - Workshop “Red Giants as Probes of the Structure and Evolution of the Milky Way”, 15-17 Nov 2010, Rome (Italy)
 - 38th Liège International Astrophysical Colloquium, “Evolution and Pulsation of Massive Stars on the Main Sequence and Close to it”, 7-11 July 2008, Liège (Belgium)
- Participation in research programmes and projects**
- HAYDN (High-precision Asteroseismology in DeNse stellar fields), a M7 ESA mission (ESA-Voyage 2050) in Phase 0. Member of the Core Proposing Team and of Scientific Team
 - ISSI-funded project “AsteroCatS: A legacy catalogue for Spectroscopic surveys” (P.I.: Marica Valentini & Guillaume Guiglion, IAP)
 - 4MOST: in 4MIDABLE-LR (4MOST Milky Way Disk and Bulge Low-Resolution) survey (P.I. Cristina Chiappini).
 - PLATO (ESA Cosmic Vision project) from 2010 during the definition phase. Participation in PSPM/SSPM (PLATO Science Preparation Management/ Stellar Science Preparation Management) as Chair of WP121120 (“grids of stellar models” inside WP12100 -1D Stellar Models) and of WP127000/WP127300 (“Red Giant Stars”/“Ageing stars”)
 - ESA-Prodex “CoRoT Preparation to Exploitation”, from Sep. 2002 to Dic. 2007. Belgium P.I. : Arlette NOELS. Funded by BELSPO (Belgian Federal Science Policy Office). Objective: to elaborate a strategy for future observations and develop numerical tools for the analysis of CoRoT data .
 - ESA-Prodex “CoRoT Data Exploitation”, Gen. 2008-Dic. 2013. Belgium P.I. : Arlette NOELS. Funded by BELSPO (Belgian Federal Science Policy Office). Exploitation of seismic data for main sequence stars (B-G) and red giants (G-K). Determination of global parameters of stars with exoplanets.
 - ESTA “Stellar Evolution and Seismic Tools for Asteroseismology”, started at 2006 (<http://www.astro.up.pt/corot>), P.I. M. Monteiro (Unv. Porto).
 - KASC (Kepler Asteroseismic Science Consortium, <http://astro.phys.au.dk/KASC/>) .
 - COROTGEE (APOGEE-CoRoT), Gaia-ESO Survey-CoRoT, and AsteroSTEP.
- Professional skills**
- Numerical simulations of stellar evolution, stellar structure
 - Asteroseismology and its applications: stellar structure, Galaxy formation and evolution, and characterization of exo-planets hosts
 - Referee for leading international journals in the field
 - Referee of research programs for national agencies: ANER (L’Agence National de la Recherche - France) , and ANEP (Agencia Nacional de Evaluación y Prospectiva Ministerio de Economía y Competitividad - Spain)

- Computer skills – Intermediate: Matlab, R, Microsoft Office. Sistemi operativi Microsoft Windows, Linux, OSX Apple
– Advanced: Fortran (included Modern Fortran), Supermongo, LaTeX, Python

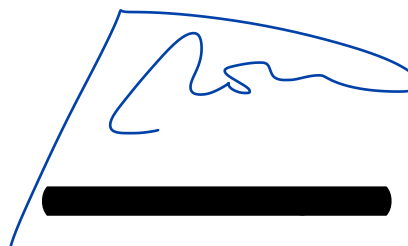

SCIENTIFIC PRODUCTIVITY

- Publicazioni – Author of 235 publications in ADS-listed international journals, of which 149 in refereed journals. Complete list in section I in appendix “Scientific productivity” . Corresponding Bibliographic Indices:
- 11550 citazioni su ADS
 - H-index: 59
 - H1 index: 14

- Teaching and young researchers’ formation – teaching in undergraduate (Master) and postgraduate courses:
- “Corso di Laurea magistrale in Astronomia”: Lectures on Asteroseismology as part of the module “Astrofisica Teorica (Mod.A)” at the Dipartimento di Fisica e Astronomia “Galileo Galilei”, Università di Padova: 14h. Academic year 2015/16
 - “Corso di Laurea magistrale in Astronomia”: Lectures on Asteroseismology as part of the module “Astrofisica Teorica (Mod.A)” at the Dipartimento di Fisica e Astronomia “Galileo Galilei”, Università di Padova: 16h. Teaching assignment, academic years 2016/17 and 2017/18
 - Lecture and Laboratory at the “International Young Astronomers School on CoRoT Astrophysics”, THE STAR AND ITS PLANETARY SYSTEM IN THE WAKE OF COROT ADVANCES, October 6-10, 2008 - Observatoire de Paris-Meudon, Francia.
 - Lecture at the international school Evry Schatzman “Les simulations numériques en physique stellaire: théorie, méthodes numériques et applications” 2009, Aussois, France 6h
- PhD and Master’s thesis while working at the University of Liège:
- Supervisor of three PhDs: Andrea MIGLIO, Mehdi-Pierre BOUABID and Sebastien SALMON
 - Supervisor of two thesis of “Diplome Etudes Avancees” (DEA)
 - Member of PhD thesis committees in Belgium and France.

- Invited Talks and participation at national and international conferences and seminars – See section II in the appendix “Scientific productivity”

Padova, 8 ottobre 2023

APPENDIX : SCIENTIFIC PRODUCTIVITY

- I) List of Publications
 - A. Conference Editor
 - B. Book Chapters
 - C. Publications in refereed journals
 - D. Conference proceedings and non-refereed journals
- II) Participation in National and International Conferences and Workshop
- III) Press release/ communications

I LIST OF PUBLICATIONS

- 255 publications reported in ADS, of which 151 with referee.
- 11602 citations
- H index : 59
- H1 index : 14

The list of publications in subsections B, C and D results from search in http://adsabs.harvard.edu/abstract_service.html

A. CONFERENCE EDITOR :

- Communications in Asteroseismology, Vol.158, p. 277 Proceedings del “38th Liege International Astrophysical Colloquium : Evolution and Pulsation of Massive Stars on the Main Sequence and Close to it”, July 7– 11 ,2008, Liege, Belgium. Editors : Arlette Noels, Conny Aerts, Josefina Montalbán, Andrea Miglio and Maryline Briquet.
- Proceedings of the workshop “Red giants as probes of the structure and evolution of the milky way”, November 15–17 November, 2010, Rome, Italy. Editors : A. Miglio, J. Montalbán & A. Noels. Astrophysics and Space Sciences Proceedings (Springer-Verlag) ISBN 978-3-642-18417-8
<http://dx.doi.org/10.1007/978-3-642-18418-5>
- Proceeding of the 40th Liège International Astrophysical Colloquium. Ageing Low Mass Stars : From Red Giants to White Dwarfs, Liège, Belgium, Edited by J. Montalbán; A. Noels; V. Van Grootel; EPJ Web of Conferences, Volume 43
- Proceeding of the workshop “Asteroseismology of stellar populations in the Milky Way” July

Sesto, Italy, Edited by A. Miglio, L. Girardi, P. Eggenberger & J. Montalbán ; Astrophysics and Space Science Proceedings, Volume 39. ISBN 978-3-319-10992-3. Springer International Publishing Switzerland, 2015
<http://dx.doi.org/10.1007/978-3-319-10993-0>

- Proceeding of the workshop “Reconstruction the Milky Way’s History : Spectroscopic surveys, Asteroseismology and Chemo-dynamical models”, Guest Editors C. Chiappini, J. Montalbán, and M. Steffen, 2016 *Astronomische Nachrichten*, Vol. 337, Issue 8-9, p.773

B. BOOK CHAPTERS :

- [1] Y. Lebreton, M. J. Goupil, and **J. Montalbán**. How accurate are stellar ages based on stellar models?. I. The impact of stellar models uncertainties. In *EAS Publications Series*, volume 65 of *EAS Publications Series*, pages 99–176, November 2014.
- [2] Y. Lebreton, M. J. Goupil, and **J. Montalbán**. How accurate are stellar ages based on stellar models?. II. The impact of asteroseismology. In *EAS Publications Series*, volume 65 of *EAS Publications Series*, pages 177–223, November 2014.

C. PUBLICATIONS IN REFEREED JOURNALS :

- [3] G. Casali, V. Grisoni, A. Miglio, C. Chiappini, M. Matteuzzi, L. Magrini, E. Willett, G. Cescutti, F. Matteucci, A. Stokholm, M. Tailo, **Josefina Montalbán**, Y. Elsworth, and B. Mosser. Time evolution of Ce as traced by APOGEE using giant stars observed with the Kepler, TESS and K2 missions. *A&A*, 677 :A60, September 2023.
- [4] Massimiliano Matteuzzi, **Josefina Montalbán**, Andrea Miglio, Mathieu Vrad, Giada Casali, Amalie Stokholm, Marco Tailo, Warrick H. Ball, Walter E. van Rossem, and Marica Valentini. Red horizontal branch stars : An asteroseismic perspective. *A&A*, 671 :A53, March 2023.
- [5] G. Gilmore, S. Randich, C. C. Worley, [... **Josefina Montalbán**...] and 162 more authours The Gaia-ESO Public Spectroscopic Survey : Motivation, implementation, GIRAFFE data processing, analysis, and final data products. *A&A*, 666 :A120, October 2022.
- [6] S. Randich, G. Gilmore, L. Magrini, [... **Josefina Montalbán**...] and 161 more authours The Gaia-ESO Public Spectroscopic Survey : Implementation, data products, open cluster survey, science, and legacy. *A&A*, 666 :A121, October 2022.
- [7] M. Tailo, E. Corsaro, A. Miglio, **J. Montalbán** , K. Brogaard, A. P. Milone, A. Stokholm, G. Casali, and A. Bragaglia. Asteroseismology of the multiple stellar populations in the globular cluster M4. *A&A*, 662 :L7, June 2022.
- [8] S. J. A. J. Salmon, P. Eggenberger, **J. Montalbán** , A. Miglio, A. Noels, G. Buldgen, F. Moyano, and G. Meynet. Asteroseismology of β Cephei stars : The stellar inferences tested in hare and hound exercises. *A&A*, 659 :A142, March 2022.

- [9] L. Fellay, G. Buldgen, P. Eggenberger, S. Khan, S. J. A. J. Salmon, A. Miglio, and **J. Montalbán**. Asteroseismology of evolved stars to constrain the internal transport of angular momentum. IV. Internal rotation of Kepler-56 from an MCMC analysis of the rotational splittings. *A&A*, 654 :A133, October 2021.
- [10] Andrea Miglio, Léo Girardi, Frank Grundahl, Benoit Mosser, Nate Bastian, Angela Bragaglia, Karsten Brogaard, Gaël Buldgen, William Chantereau, William Chaplin, Cristina Chiappini, Marc-Antoine Dupret, Patrick Eggenberger, Mark Gieles, Robert Izzard, Daisuke Kawata, Christoffer Karoff, Nadège Lagarde, Ted Mackereth, Demetrio Magrin, Georges Meynet, Eric Michel, **Josefina Montalbán**, Valerio Nascimbeni, Arlette Noels, Giampaolo Piotto, Roberto Ragazzoni, Igor Soszyński, Eline Tolstoy, Silvia Toonen, Amaury Triaud, and Fiorenzo Vincenzo. Haydn. *Experimental Astronomy*, 51(3) :963–1001, June 2021.
- [16] J. Ted Mackereth, Andrea Miglio, Yvonne Elsworth, Benoit Mosser, Savita Mathur, Rafael A. Garcia, Domenico Nardiello, Oliver J. Hall, Mathieu Vrad, Warrick H. Ball, Sarbani Basu, Rachael L. Beaton, Paul G. Beck, Maria Bergemann, Diego Bossini, Luca Casagrande, Tiago L. Campante, William J. Chaplin, Cristina Chiappini, Léo Girardi, Andreas Christ Sølvesten Jørgensen, Saniya Khan, **Josefina Montalbán**, Martin B. Nielsen, Marc H. Pinsonneault, Thaïse S. Rodrigues, Aldo Serenelli, Victor Silva Aguirre, Dennis Stello, Jamie Tayar, Johanna Teske, Jennifer L. van Saders, and Emma Willett. Prospects for Galactic and stellar astrophysics with asteroseismology of giant stars in the TESS continuous viewing zones and beyond. *MNRAS*, 502(2) :1947–1966, April 2021.
- [18] Thierry Morel, Orlagh L. Creevey, **Josefina Montalbán**, Andrea Miglio, and Emma Willett. Testing abundance-age relations beyond solar analogues with Kepler LEGACY stars. *A&A*, 646 :A78, February 2021.
- [19] Andreas Christ Sølvesten Jørgensen, **Josefina Montalbán**, George C. Angelou, Andrea Miglio, Achim Weiss, Richard Scuflaire, Arlette Noels, Jakob Rørsted Mosumgaard, and Víctor Silva Aguirre. On the impact of the structural surface effect on global stellar properties and asteroseismic analyses. *MNRAS*, 500(4) :4277–4295, January 2021.
- [20] A. Miglio, C. Chiappini, J. T. Mackereth, G. R. Davies, K. Brogaard, L. Casagrande, W. J. Chaplin, L. Girardi, D. Kawata, S. Khan, R. Izzard, **Josefina Montalbán**, B. Mosser, F. Vincenzo, D. Bossini, A. Noels, T. Rodrigues, M. Valentini, and I. Mandel. Age dissection of the Milky Way discs : Red giants in the Kepler field. *A&A*, 645 :A85, January 2021.
- [15] **Josefina Montalbán**, J. Ted Mackereth, Andrea Miglio, Fiorenzo Vincenzo, Cristina Chiappini, Gaël Buldgen, Benoît Mosser, Arlette Noels, Richard Scuflaire, Mathieu Vrad, Emma Willett, Guy R. Davies, Oliver J. Hall, Martin Bo Nielsen, Saniya Khan, Ben M. Rendle, Walter E. van Rossem, Jason W. Ferguson, and William J. Chaplin. Chronologically dating the early assembly of the Milky Way. *Nature Astronomy*, May 2021.
- [16] J. Ted Mackereth, Andrea Miglio, Yvonne Elsworth, Benoit Mosser, Savita Mathur, Rafael A. Garcia, Domenico Nardiello, Oliver J. Hall, Mathieu Vrad, Warrick H. Ball, Sarbani Basu, Rachael L. Beaton, Paul G. Beck, Maria Bergemann, Diego Bossini, Luca Casagrande, Tiago L. Campante, William J. Chaplin, Cristina Chiappini, Léo Girardi, Andreas Christ Sølvesten Jørgensen, Saniya Khan, **Josefina Montalbán**, Martin B. Nielsen, Marc H. Pinsonneault, Thaïse S. Rodrigues, Aldo Serenelli, Victor Silva Aguirre, Dennis Stello, Jamie Tayar, Johanna Teske, Jennifer L. van Saders, and Emma Willett. Prospects for Galactic and stellar astrophysics with asteroseismology of giant stars in the TESS continuous viewing zones and beyond. *MNRAS*, 502(2) :1947–1966, April 2021.

- [17] Andrea Miglio, Léo Girardi, Frank Grundahl, Benoit Mosser, Nate Bastian, Angela Bragaglia, Karsten Brogaard, Gaël Buldgen, William Chantereau, William Chaplin, Cristina Chiappini, Marc-Antoine Dupret, Patrick Eggenberger, Mark Gieles, Robert Izzard, Daisuke Kawata, Christoffer Karoff, Nadège Lagarde, Ted Mackereth, Demetrio Magrin, Georges Meynet, Eric Michel, **Josefina Montalbán**, Valerio Nascimbeni, Arlette Noels, Giampaolo Piotto, Roberto Ragazzoni, Igor Soszyński, Eline Tolstoy, Silvia Toonen, Amaury Triaud, and Fiorenzo Vincenzo. Haydn. *Experimental Astronomy*, March 2021.
- [18] Thierry Morel, Orlagh L. Creevey, **Josefin. Montalbán**, Andrea Miglio, and Emma Willett. Testing abundance-age relations beyond solar analogues with Kepler LEGACY stars. *A&A*, 646 :A78, February 2021.
- [19] Andreas Christ Sølvesten Jørgensen, **Josefina Montalbán**, George C. Angelou, Andrea Miglio, Achim Weiss, Richard Scuflaire, Arlette Noels, Jakob Rørsted Mosumgaard, and Víctor Silva Aguirre. On the impact of the structural surface effect on global stellar properties and asteroseismic analyses. *MNRAS*, 500(4) :4277–4295, January 2021.
- [20] A. Miglio, C. Chiappini, J. T. Mackereth, G. R. Davies, K. Brogaard, L. Casagrande, W. J. Chaplin, L. Girardi, D. Kawata, S. Khan, R. Izzard, **J. Montalbán**, B. Mosser, F. Vincenzo, D. Bossini, A. Noels, T. Rodrigues, M. Valentini, and I. Mandel. Age dissection of the Milky Way discs : Red giants in the Kepler field. *A&A*, 645 :A85, January 2021.
- [21] Andreas Christ Sølvesten Jørgensen, **Josefina Montalbán**, Andrea Miglio, Ben M. Rendle, Guy R. Davies, Gaël Buldgen, Richard Scuflaire, Arlette Noels, Patrick Gaulme, and Rafael A. García. Investigating surface correction relations for RGB stars. *MNRAS*, 495(4) :4965–4980, July 2020.
- [22] William J. Chaplin, Aldo M. Serenelli, Andrea Miglio, Thierry Morel, J. Ted Mackereth, *and 79 more authors* [... **Josefina Montalbán**...] . Age dating of an early Milky Way merger via asteroseismology of the naked-eye star ν Indi. *Nature Astronomy*, 4 :382–389, January 2020.
- [23] G. Buldgen, M. Farnir, C. Pezzotti, P. Eggenberger, S. J. A. J. Salmon, **J. Montalbán**, J. W. Ferguson, S. Khan, V. Bourrier, B. M. Rendle, G. Meynet, A. Miglio, and A. Noels. Revisiting Kepler-444. I. Seismic modeling and inversions of stellar structure. *A&A*, 630 :A126, October 2019.
- [24] F. Vincenzo, A. Miglio, C. Kobayashi, J. T. Mackereth, and **J. Montalbán**. He abundances in disc galaxies. I. Predictions from cosmological chemodynamical simulations. *A&A*, 630 :A125, October 2019.
- [25] G. Buldgen, S. J. A. J. Salmon, A. Noels, R. Scuflaire, **J. Montalbán**, V. A. Baturin, P. Eggenberger, V. K. Gryaznov, I. L. Iosilevskiy, G. Meynet, W. J. Chaplin, A. Miglio, A. V. Oreshina, O. Richard, and A. N. Starostin. Combining multiple structural inversions to constrain the solar modelling problem. *A&A*, 621 :A33, January 2019.
- [26] P. Eggenberger, S. Deheuvels, A. Miglio, S. Ekström, C. Georgy, G. Meynet, N. Lagarde, S. Salmon, G. Buldgen, **J. Montalbán**, F. Spada, and J. Ballot. Asteroseismology of evolved stars to constrain the internal transport of angular momentum. I. Efficiency of transport during the subgiant phase. *A&A*, 621 :A66, January 2019.
- [27] T. Sonoi, H. G. Ludwig, M. A. Dupret, **J. Montalbán**, R. Samadi, K. Belkacem, E. Caffau, and M. J. Goupil. Calibration of mixing-length parameter α for MLT and FST models by matching with CO⁵BOLD models. *A&A*, 621 :A84, January 2019.

- [28] Michele Trabucchi, Peter R. Wood, **Josefina Montalbán**, Paola Marigo, Giada Pastorelli, and Léo Girardi. Modelling long-period variables - I. A new grid of O-rich and C-rich pulsation models. *MNRAS*, 482(1) :929–949, January 2019.
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II PARTICIPATION IN NATIONAL AND INTERNATIONAL CONFERENCES AND WORKSHOPS

Highlights :

1. Phases Of Galactic Evolution as Traced by Stellar Populations and Star Clusters, Workshop Sexten, Italy, 23-30 June 2023, *Contribution from seismic giants to the characterisation of the MW populations* (Invited talk)
2. Stellar Evolution along the HR Diagram with *Gaia*, MW-Gaia WP2/1 Hybrid Workshop, Naples, Italy, 20-23 September 2022, *Asteroseismology and Gaia : pulsators on the main sequence and red-giant stars* (invited talk)
3. Large-scale surveys as bridges between spectroscopy and photometry, RR Lyrae & Cepheid Stars Conference, La Palma, Spain, September 26-30 , 2022. *Ensemble asteroseismology in surveys* (invited talk)
4. 2021 GALAH Science Meeting, 22-24 July 2021, Sydney (Virtual Meeting). *Asteroseismic ages for Galactic archeology : from global seismic parameters to individual mode frequencies* (talk)
5. SDSS-IV/V Collaboration Meeting, 22-26 June 2020, Virtual Meeting . *A chronology of the early Milky Way assembly with asteroseismology of metal-poor stars* (talk)

6. GES 2019- The Legacy of the Gaia-ESO survey, 24-27 September 2019, Firenze, Italy. *Characterization of CoRoT red giants* (talk)
7. The Milky Way Unravelled by Gaia, GREAT Science from the Gaia Data Releases, Barcelona, Spain, 1-5 December 2014. *Synergy between asteroseismology and the Gaia mission* (invited talk)
8. Scientific meeting of the Sociedad Española de Astronomía (SEA) 2014, 7-12 September 2014, Teruel, Spain. *The potential of solar-like pulsators : from planetary systems to the structure of the Milky Way* (invited talk)
9. CoRoT3-KASC7 : The Space Photometry Revolution, 6-11 July, 2014, Toulouse, France. *Ensemble asteroseismology, clusters and scaling laws* (invited talk)
10. ESTER workshop, stellar codes with focus on structure and evolution, atmospheres and seismology, in 1D or multi-D. 10-12 June, 2014, Toulouse, Francia. *“Convective boundaries : Ledoux or Schwarzschild criterion ?”* (invited talk)
11. 400 Years of Stellar Rotation, 21-26 November 2013 in Natal, Brasil. *Core Rotation of Red Giants* (Invited review)
12. Gaia/GREAT/ESF workshop The World of Clusters, 23-25 September 2013, Padova, Italy. *Asteroseismology of Red Giants* (talk)
13. Asteroseismology of stellar populations in the Milky Way, 22-26 July 2013, Sexten, Italy. *Structure and evolution of red giants from the point of view of asteroseismology* (invited talk).
14. Ageing low mass stars : from red giants to white dwarfs. 9-12 July 2012, Liege, Belgium. *Asteroseismology of red giants, theoretical aspects* (invited talk).
15. IAU XXVIII General Assembly : Special Session #13, High-precision tests of stellar physics from high-precision photometry, 27-31 August 2012, Beijing, China. *Mixing processes in main sequence stars from dipole modes in red giants* (talk).
16. 2nd CoRoT Symposium : Transiting planets, vibrating stars and their connection, 14-17 June 2011 in Marseille, France. *Contribution from seismic indexes to star characterization* (invited review).
17. Red Giants as probes of the structure and evolution of the Milky Way, 15-17 November 2010, Rome, Italy. *What do oscillation frequencies tell us about the internal structure of red giants ?* (invited talk).
18. HELAS IV International Conference : Seismological Challenges for Stellar Structure, 1-5 February 2010, Arrecife, Lanzarote, Spain. *Inference from adiabatic analysis of solar-like oscillations in red giants* (talk)
19. HELAS , The European Network of Helio- and Asteroseismology : Synergies between solar and stellar modelling, 22-26 June 2009, Rome (Italy). *Stellar Convection in main sequence stars and giants* (Invited talk)
20. 1st CoRoT International Symposium, 2-5 Febrero 2009, Paris (Francia). Conference without proceedings.
http://132.149.11.177/COROT/sympo1/prog_symposium09.pdf. Coauthor of five oral presentations and seven posters
21. HELAS NA5 Workshop : Interpretation of Asteroseismic Data, 23-27 June 2008, Wroclaw (Poland). *Input from opacity data in computation of pulsation instability* (invited talk)

22. 38th Liege International Astrophysical Colloquium : Evolution and Pulsation of Massive Stars on the Main Sequence and Close to it. 7-11 Julio 2008, Liège, Belgium. Organization and coauthor of one oral presentation and 3 posters.
23. HELAS NA3-2 Workshop : Low degree and low frequency modes. 18-21 September 2007, La Palma (Spain), *The effect of turbulent mixing on g-modes spectrum of MS stars* (talk)
24. Joint HELAS and CoRoT/ESTA Workshop : Stellar Evolution and Seismic Tools for Asteroseismology. Diffusive processes in Stars and Seismic Analysis. 20-23 November 2006, CAUP, Porto (Portugal). Two invited oral contribution : 1) *Comparisons for ESTA-Task3 : CLES and CESAM*; 2) *LOSC : Liege adiabatic oscillation code*.
25. Kickoff meeting SIAMOIS, 15-16 Mayo 2006, Observatoire de Paris, Paris (France). *Models & frequencies for α Cen A and B* (invited talk). <http://siamois.obspm.fr/kickoff.html>
26. Symposium IAU 239 : Convection in stars. 21-25 Agosto 2006, Praga Republic Checa. Three posters : 1) *Effect of convection modeling on the non-adiabatic seismic observables of δ Scuti stars*, 2) *Pre-main Sequence models with convection described by 2D-RHD numerical simulations* 3) *Effect of microturbulence parameter on the Color-Magnitude Diagram*
27. Helio and Asteroseismology : Towards a Golden Future. SOHO 14/GONG 2004 Workshop. 2004, New Haven, Connecticut (USA). *Solar Model with CNO Revised Abundances* (poster) (cited : 54)
28. Symposium IAU 224 : The A-star puzzle. 8-13 July 2004, Poprad, Slovakia. *A-type stars : evolution, rotation and binarity* (Invited review).
29. Modelling of Stellar Atmospheres, IAU Symp. 210. 2002, Uppsala, Sweden. Two posters : 1) *Problems and Difficulties in Building up Stellar Models with Non-grey Boundary Conditions*, 2) *Pre-Main Sequence Models Using the Viena Grids of ATLAS9 Atmospheres*
30. Inside the stars. IAU Colloquim 137. 1992, Viena, Austria. Two posters : 1) *Mixing by internal waves*, 2) *The Generation of Internal Waves*

III PRESS RELEASE/ COMMUNICATIONS

- Stelle vecchie in corpi giovane, MEDIA INAF, <https://www.media.inaf.it/2015/04/10/stelle-vecchie-corpo-giovane/>)
- <https://www.birmingham.ac.uk/news/2021/dating-the-stars-scientist-provide-most-accurate-picture-yet>