

# Nuno Alexandre Martins Moedas

*Curriculum Vitæ*

## PERSONAL DETAILS

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*Birth* July 17, 1996  
*Address* 25 de Fevereiro n°18, 2200-249 Abrantes (Portugal)  
*Phone* (+351) 968 591 081  
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## EDUCATION

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**PhD in Astronomy** Oct. 2020– Ongoing  
*Faculdade de Ciências da Universidade do Porto (FCUP), Porto (Portugal)*

I am currently working in my PhD in astronomy under supervision of Dr Diego Bossini (IA researcher) and Dr Deal Morgan (IA researcher) in “Toward a New Generation of Stellar Models: Impact of Physical Ingredients on the Accuracy of Stellar Parameter Inferences”

**Master in Astronomy and Astrophysics** Sep. 2017–Dec. 2019  
*Faculdade de Ciências da Universidade do Porto (FCUP), Porto (Portugal)*

In my masters, I developed my knowledge in several fields in astronomy and astrophysics, and also I learned more physics and have opportunity to learn more in mathematics specially in stochastic processes and partial differential equation. Master’s thesis developed under the supervision of Dr Tiago Campante (IA researcher) and Dr Margarida Cunha (IA researcher) in “Asteroseismic grid modeling of the Kepler LEGACY sample: Investigating the helium enrichment law”.

Classification average: 16 (in 20)

**Licenciatura (Bachelor Degree) in Physics** Sep. 2014-Sep. 2017  
*Universidade de Aveiro(UA), Aveiro (Portugal)*

In my first degree, I learn the basics uses in the physics and mathematics tools and I used them to developed my knowledge in physics. I also learned computational science specially in simulation and modulation of physical events, and also have opportunity to learn about electronics and chemistry. First Degree project in “Estudo da evolução das órbitas das Luas de Júpiter” supervised by Dr Alexandre Correia.

Classification average:16 (in 20)

## CONFERENCES

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**Participation (in person) in “9th Iberian Meeting on Asteroseismology”** October 2022  
*Montanejos, Valencia, Spain*

I presented a talk in “Exploring the effect of turbulent mixing in F-type stars” and I was the chair of the hands on project “On the modelling of the planet-host F-type star 94 Ceti A”.

**Participation (in person) in “TASC6/KASC13 Workshop”** July 2022  
*Leuven, Belgium*

I presented a poster and pitch talk in “Chemical Transport Mechanisms in Solar-Like Stars: Exploring the Turbulent Mixing in FG-Type Stars”.

**Participation (Online) in “Cool Stars 21”** July 2022  
*Toulouse, France*

I presented a poster in “Atomic Diffusion and Turbulent Mixing in Solar-Like Stars: Impact on the Fundamental Properties of FG-Type Stars”.

**Participation (in person) in “Encontro com a Ciência e Tecnologia em Portugal 2022”** May. 2022  
*Centro de Congressos de Lisboa*

I presented a poster about “The chemical transport mechanisms in stellar interiors: atomic diffusion and macroscopic transport processes”.

- Participation (online) in “8th Iberian Meeting on Asteroseismology”** Oct. 2021  
*Instituto de Astrofísica e Ciências do Espaço (Porto, Portugal)*  
 I presented a talk in “Investigating the chemical evolution in solar-like stars: Effect of turbulent mixing in stellar models”.
- Participation (in person) in “Encontro de Investitigação Jovens” (IJUP)** Feb. 2020  
*Reitoria da Universidade do Porto, Porto (Portugal)*  
 I presented a talk about “Asteroseismic grid modeling of the Kepler LEGACY sample: Investigating the helium enrichment law”.

## OTHER ACTIVITIES

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- Support member of the Ariel Consortium** from June 2022  
*I am participating to the “Stellar Characterization Working-Group” within the activities of age-mass subgroup, including its Hare and Hound exercise.*
- Organiser of the “Stars Days”** 2021 - 2022  
*A series of internal meetings of the Star Group of the Instituto de Astrofísica e Ciências do Espaço (Portugal).*
- Organisation of the “8th Iberian Meeting on Asteroseismology”** Oct. 2021  
*As part of the Local Organisation Committee (LOC) of the conference at Instituto de Astrofísica e Ciências do Espaço (Porto, Portugal).*

## PUBLICATIONS

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- Nuno Moedas, Morgan Deal, Diego Bossini, and Bernardo Campilho (2022)**, *Atomic Diffusion and Turbulent Mixing in Solar-Like Stars: Impact on the Fundamental Properties of FG-Type Stars*; Astronomy & Astrophysics, 666, id.A43, 15 pp .
- Nsamba, Benard; Moedas, Nuno; Campante, Tiago L; Cunha, Margarida S; Hernández, Antonio García; Suárez, Juan C; Monteiro, Mário J P F G; et al. (2021)**, *Asteroseismic modelling of solar-type stars: a deeper look at the treatment of initial helium abundance*; Monthly Notices of the Royal Astronomical Society 500 1 (2021): 54-65.
- Nuno Moedas, Benard Nsamba, Miguel Clara (2020)**, *In-depth exploration of the treatment of initial helium abundance in asteroseismic stellar modelling*; Submitted in the conference proceeding of “Dynamics of the Sun & Stars: Honoring the Life & Work of Michael Thompson” published by Springer as a volume in the series of Astrophysics and Space Science Proceedings

## SKILLS

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<i>Languages</i>	Portuguese (Mother Tongue) English
<i>Programming Languages</i>	PYTHON, FORTRAN, MATLAB, R, L <sup>A</sup> T <sub>E</sub> X
<i>Astronomy Softwares</i>	MESA (Stellar Evolution Code) GYRE (Stellar Oscillation Code) AIMS (Optimization Tool for Stellar Characterization)