

# Nina-Elisabeth Nèmec

## Curriculum vitae

### Personal Information

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Contact Details: Max Planck Institute for Solar System Research  
Justus-von-Liebig-Weg 3, 37077 Göttingen, Germany  
nemec@mps.mpg.de, +49 551 384 979-369

Date of birth: October 16th, 1993

Place of birth: Amstetten, Austria

Nationality: Austrian

### Education

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2017 – 2021: PhD in Physics from the University of Göttingen, at the International Max Planck Research School (IMPRS) at the Max Planck Institute for Solar System Research (MPS) and the University of Göttingen, Göttingen, Germany

Thesis Title: Exploring the solar paradigm to explain stellar variability

Advisors: Dr Alexander I. Shapiro, Dr Natalie A. Krivova, Prof. Dr Stefan Dreizler

2015 – 2017: MSc in Astronomy at the University of Vienna, Vienna, Austria

Thesis Title: The XUV Sun in time

Advisor: Prof. Dr Manuel Güdel

2016 – 20217: Erasmus + study, KU Leuven, Leuven, Belgium

2012 – 20215: BSc in Astronomy at the University of Vienna, Vienna, Austria

Thesis Title: The solar wind in time

Advisor: Prof. Dr Manuel Güdel

### Current Position

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2021 – present: Post-doctoral researcher in SOLVe Group at MPS

Lead: Dr Alexander I. Shapiro

### Previous Positions

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2017 – 2021: Doctoral researcher in SOLVe Group at MPS

Lead: Dr. Alexander I. Shapiro

2014 – 2017: Res Assistant in the FWF Project “Pathways to Habitability” at the University of Vienna

Lead: Prof. Dr. Manuel Güdel

2014 – 2017: Res Assistant in the Star and Planet Formation Group at the University of Vienna

Lead: Prof. Dr. Manuel Güdel

## Scholarships and Honours

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2021	Graduated with highest distinction (summa cum laude) at the University of Göttingen
2017	Performance Scholarship, University of Vienna
2016	Erasmus+ Scholarship for KU Leuven, Belgium
2016	Performance Scholarship, University of Vienna
2015	Performance Scholarship, University of Vienna
2015	Scholarship Alpbach Summer School 2015

## Publications

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K. Sowmya, **N.-E. Nèmec**, A. I. Shapiro, E., E. Isik, V. Witzke, A. Mints, N. A. Krivova, and S. K. Solanki: *Predictions of astrometric jitter for Sun-like stars. II. Dependence on inclination, metallicity, and active region nesting*, submitted to ApJ

K. Sowmya, A. I. Shapiro, V. Witzke, **N.-E. Nèmec**, T. Chatzistergos, N. A. Krivova, and S. K. Solanki: *Modeling stellar Ca II H & K emission variations. I. Effect of inclination on the S-index.*, accepted for publication in ApJ

T. Reinhold, A. I. Shapiro, V. Witzke, **N.-E. Nèmec**, E. Isik, and S. K. Solanki: *Where have all the solar-like stars gone? Rotation period detectability at various inclinations and metallicities*, 2021, ApJL, 908

**N.-E. Nèmec**, E. Isik, A. I. Shapiro, S. K. Solanki, N. A. Krivova, and Y. Unruh: *Connecting measurements of solar and stellar brightness variations*, 2020, A&A, 638, A56

**N.-E. Nèmec**, A. I. Shapiro, N. A. Krivova, R.V. Tagirov, R. H. Cameron, S. K. Solanki and S. Dreizler: *Power spectra of solar brightness variations at different inclinations*, 2020, A&A, 636, A43

D. Shulyak, L. M. Lara, M. Rengel, and **N.-E. Nèmec**: *Stellar impact on disequilibrium chemistry and observed properties of hot Jupiter atmospheres*, 2020, A&A, 639, A48

## Oral presentations at international meetings

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**N.-E. Nèmec**, E. Işik, A. I. Shapiro, T. Reinhold, S. K. Solanki, and N. A. Krivova, *Forward modelling of stellar surface magnetic fields and brightness variations*, BCool 2021, virtual meeting

**N.-E. Nèmec**, A.I. Shapiro, N. A. Krivova, R. H. Cameron, S. K. Solanki, S. Dreizler, *Solar brightness variations as they would be observed by the Kepler telescope*, Observing the Sun as a star, Göttingen, Germany, 2018

**N.-E. Nèmec**, A.I. Shapiro, N. A. Krivova, R. H. Cameron, S. K. Solanki, S. Dreizler, *Solar brightness variations as they would be observed by the Kepler telescope*, XXXth General Assembly of the International Astronomical Union, Vienna, Austria, 2018

**N.-E. Nèmec**, A.I. Shapiro, N. A. Krivova, R. H. Cameron, S. K. Solanki, S. Dreizler, *Solar brightness variations as they would be observed by the Kepler telescope*, Sun-Climate Symposium, Lake Arrowhead/California, USA, 2018

**N.-E. Nèmec**, M. Güdel, T. Lüftinger, C.P. Johnstone, *The XUV Sun in Time*, General Assembly of the German Astronomical Union, Göttingen, Germany, 2017

## Services to the community and outreach activities

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2019	Lecture for high school students in the framework of the Future Day at MPS
2019	Presentation of a scientific project (exhibition stand) at the Night of Science, Göttingen
2018 – 2019	Member of Max Planck PhDnet working group on Open Science and Good Scientific Practice
2018 – 2019	Member of Max Planck PhDnet working group to organise the General Meeting of the PhDnet in 2019
2018 – 2019	Member of the Executive Committee of IMPRS at MPS
2018 – 2019	PhD Student Representative of IMPRS at MPS
2016	Member of LOC, <i>Conference "The Astrophysics of Habitability"</i> , Vienna, Austria
2016	Presentation of a scientific project (exhibition stand) at "Lange Nacht der Forschung", Vienna, Austria
2015 – 2017	Chief Faculty Student Representative, University of Vienna
2015 – 2017	Student Representative for Astronomy, University of Vienna

## Teaching

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Summer 2019	TA "Experimental Physics IV" at University of Göttingen
Summer 2019	TA "Analytical Mechanics" at University of Göttingen
Summer 2018	Supervision of two high school students during their 2 weeks internship at MPS
Winter 2018	TA "Calculation methods" at University of Göttingen
Summer 2017	TA "Lab: Introduction to astronomical methods" at University of Vienna
Summer 2016	TA "Lab: Introduction to astronomical methods" at University of Vienna
Winter 2015	TA "Mathematical Methods I" at University of Vienna
Winter 2014	TA "Introduction to Astronomy" at University of Vienna