

# Judy J. Chebly

## Contact Information

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## Employment History

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### Ph.D. Student

**Potsdam, Germany**

*Oct 2020 – Present*

Leibniz Institute for Astrophysics (AIP)  
*Stellar winds and coronal mass ejections and their effect on exoplanets*  
**Supervisors:** Prof. Dr. Katja Poppenhaeager and Dr. Julián Alvarado Gómez

### Astronomy Research fellow

**Jbeil, Lebanon**

*Jan 2020 – Apr 2020*

Lebanese American University (LAU)  
*A statistical study of the Palomar Transient Factory Comet Sample*  
**Supervisor:** Prof. Nelly Mouawad

### Astronomy Research fellow

**Jbeil, Lebanon**

*Jan 2019 – Dec 2019*

Lebanese American University (LAU)  
*Comparing very high spectral resolution of Mercury's Na exosphere with the MESSENGER M3 data*  
**Supervisor:** Prof. Nelly Mouawad

### Astronomy Research fellow

**Beirut, Lebanon**

*Oct 2017 – May 2018*

American University of Lebanon (AUB)  
*Jupiter's South Pole Discrete structure analysis from the Juno mission*  
**Supervisor:** Prof. Ghassan Antar

## Education

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### Strasbourg University

**Strasbourg, France**

*Sep 2016 – Aug 2017*

MSc in Astrophysics  
*The stochastic nature of the integrated spectra of stellar populations*  
**Supervisor:** Prof. Ariane Lançon

### Lebanese University

**Fanar, Lebanon**

*Sep 2015 – Aug 2016*

MSc in General Physics  
*Biomedical application of Magnetic Nanofibers produced by electrospinning*  
**Supervisor:** DR. Cynthia Eid

### Lebanese University

**Fanar, Lebanon**

*Sep 2012 – Aug 2015*

BSc in Physics

### Elysee College

**Hazmieh, Lebanon**

*Jun 2012*

High School Degree in Earth and Life Sciences

## Research Experience

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### Internship

**Strasbourg, France / Heidelberg, Germany**

May 2017 – Jun 2017

*The stochastic nature of the integrated spectra of stellar populations*

Faculty of Physics and Engineer / Max-Planck Institute for Astronomy

**Supervisors:** Prof. Ariane Lançon and Dr. Morgan Fouesneau

### Ground-based Observations

**Haute-Provence, France**

Dec 2016

*Imaging and spectroscopic observations of the young star T-Tau*

## Publications

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*Simulating the Space Weather in the AU Mic System: Stellar Winds and Extreme Coronal Mass Ejections.*

Alvarado-Gómez, J. D.; Cohen, O.; Drake, J. J.; Frascchetti, F.; Poppenhäger, K.; Garraffo, C.;

**Chebly, J.**; Ilin, E.; Harbach, L.; Kochukhov, O.

Accepted in the Astrophysical Journal 2022.

<https://ui.adsabs.harvard.edu/abs/2022arXiv220207949A/abstract>

*Destination exoplanet: Habitability conditions influenced by stellar winds properties.*

**Chebly, J. J.**; Alvarado-Gómez, J. D.; Poppenhäger, K.

Astronomische Nachrichten, proceeding for the XMM Newton conference 2021

<http://doi.org/10.1002/asna.20210093>

*Destination exoplanet: Habitability conditions influenced by stellar winds properties.*

**Chebly, J. J.**; Alvarado-Gómez, J. D.; Poppenhäger, K.

Poster for the 2021 Cool stars 20.5 conference

<http://coolstars20.cfa.harvard.edu/cs20half>, id.208

*Mercury's Na exosphere as seen with very high spectral resolution from the ground, and from space with MESSENGER.*

Mouawad, N.; **Chebly, J.**; Leblanc, F.; Fraine, J.; Kahil, F.

Abstract for the 22nd EGU General Assembly 2020

<https://meetingorganizer.copernicus.org/EGU2020/EGU2020-22650.html>

*First findings on cometary activity from the PTF comet sample.*

Mouawad, N.; Fraine, J.; **Chebly, J.**; Bauer, J. M.; Laher, R.; Kelley, M. S. P.; Bodewits, D.

Proceeding for AstroRob conference 2019

<https://www.astroscu.unam.mx/RMxAC/vol53.html>

## Conferences

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### Contributed talk

**July 2022, Toulouse, France**

*Stellar winds in the context of magnetism new results from 3D modelling*

Cool stars 21

### Contributed talk

**May 2021, Virtually**

*Destination exoplanet: Habitability conditions influenced by stellar winds properties*

XMM Newton Workshop: A High-Energy view of Exoplanets and their environments

### Contributed talk

**Jun 2021, Virtually**

*Destination exoplanet: Habitability conditions influenced by stellar winds properties*

MACH workshop: Influence of a Global Magnetic Field on Ion and Atmospheric Loss and Planetary Habitability

4th SWMF Users Meeting

Nov, 2020, Virtually

Sagan Workshop

Extreme Precision Radial Velocity

Jul 2020, Virtually

## Grants

The International Astronomical Union (IAU)

May 2022

The Korean Astronomical Society (KAS)

Mar 2022

## Services and Outreach

Member in Astronomers for Planet Earth (A4E)

Apr 2021 – Present

Skype a scientist

Jan 2021 – Present

Lebanese Astronomical Association (LAA)

Dec 2020 – Present

## Teaching Experience

Teaching Assistant

Potsdam, Germany

Fall 2021

Module 750: Star and Stellar evolution

First year master students

Potsdam University. (Department of Physics and Astronomy)

Tutor

Hazmieh, Lebanon

Jan 2018 – Apr 2019

Math and Sciences in French and English

Teacher for Elementary and High School students

*etcetera* a One on one learning Center (Also for people with special needs)

Private Tutor

Lebanon/ Remotely

Sep 2012 – Present

Mathematics, Chemistry, Physics, and Astronomy for different ages

Prepare students for the SAT test (Math section)

## Skills

Python ..... Skillful

Matlab ..... Experienced

Java ..... Experienced

C++ ..... Experienced

Tecplot 360 .... Skillful

ComsolMultiphysics ..... Experienced

**Other:** Latex, Linux, TOPCAT, IRAF, Microsoft office

## Languages

Arabic ..... Mother tongue

French ..... Fluent (Delf B2)

English ..... Fluent (IELTS)

German ..... Beginner

## Hobbies

Reading books, Movies, Jogging, pencil drawing, playing the guitar

## References

**Prof. Dr. Katja Poppenhäger**

*Head of Stellar Physics & Exoplanets*

📍 Leibniz Institute for Astrophysics (AIP)

✉ kpoppenhaeger@aip.de

🌐 <http://katjapoppenhaeger.com/>

**Dr. Julián D. Alvarado Gómez**

*Karl Schwarzschild Fellow*

📍 Leibniz Institute for Astrophysics (AIP)

✉ julian.alvarado-gomez@aip.de

🌐 <https://pages.aip.de/jalvarado/>

**Dr. Ofer Cohen**  
*Assistant Professor*  
📍 UMASS LOWELL

✉ [Ofer\\_Cohen@uml.edu](mailto:Ofer_Cohen@uml.edu)  
🌐 <https://sites.uml.edu/ofer-cohen/>

**Dr. Arnaud Siebert**  
*Adjoint Astronomer*  
📍 Strasbourg Observatory, CDS

✉ [arnaud.siebert@astro.unistra.fr](mailto:arnaud.siebert@astro.unistra.fr)  
🌐 <https://astro.unistra.fr/en/research/arnaud-siebert/>