

# Curriculum Vitae, Célia Desgrange

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Born on August 27<sup>th</sup>, 1997 in Strasbourg (France)  
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## Education

- 2021-2024** Philosophiae Doctor in Astronomy and Astrophysics, see the first experience.  
*Institut de Planétologie et d'Astrophysique de Grenoble (IPAG), Grenoble, France*  
*Max-Planck Institute for Astronomy (MPIA), Heidelberg, Germany*
- 2017-2021** Diplom of the École Normale Supérieure de Lyon  
*École Normale Supérieure (ENS) de Lyon, Lyon, France*
- 2019-2020** Master of Astronomy, Astrophysics and Spatial Engineering, with honors  
*Observatory of Paris within the University of Paris, France*
- 2018-2020** Master of Physics, with honors  
*ENS de Lyon within the University of Lyon, France*
- 2017-2018** Bachelor of Physics, with honors  
*ENS de Lyon within the University of Lyon, France*
- 2015-2017** Preparatory Class in Mathematics, Physics and Chemistry, with honors  
*Kléber High-School, Strasbourg, France*
- 2014-2015** Scientific 'Baccalauréat', with honors  
*Jean Monnet High-School, Strasbourg, France*

## Experience

- 2021-2024** Ph.D. entitled “Architecture of planetary systems by direct imaging of disks and exoplanets with the SPHERE instrument at the VLT, and in the context of the SPHERE+ upgrade.”  
Co-supervision between *IPAG, France* and *MPIA, Germany*  
3 years, supervised by GAËL CHAUVIN, JULIEN MILLI and THOMAS HENNING
- 2021** Internship on Exploring the link between telluric and giant planets by combining observations of 27 directly-imaged planetary systems with radial velocity and astrometric detection methods, and confronting these results with those from theoretical model predictions.  
*IPAG, Grenoble, France*  
5 months, supervised by JULIEN MILLI and GAËL CHAUVIN
- 2020-2021** Internship on Protoplanetary discs by using the latest cutting-edge post-processing algorithms in direct imaging to look for the exoplanets creating the observed sub-structures inside a sample of 15 young discs  
*MPIA, Heidelberg, Germany*  
5 months, supervised by FAUSTINE CANTALLOUBE and THOMAS HENNING

- 2020** Master's thesis on Experimental and theoretical limitations from polarisation shifts in High-Contrast Imaging  
*Laboratoire d'Études Spatiales et d'Instrumentation en Astrophysique (LESIA), Observatory of Paris, Meudon, France*  
 4 months, supervised by PIERRE BAUDOZ and RAPHAËL GALICHER
- March 2020** Observational week including the selection of the targets to observe, the manual manipulation of the telescopes (1m52, 1m20, and 80cm) and their domes, as well as the data processing and analysis  
*Observatory of Haute-Provence, France*  
 1 week, supervised by NOËL ROBICHON and HERVÉ DOLE
- 2019** Internship on the In-depth characterisation of the young planetary system HD 95086 with 10 VLT/SPHERE observations  
*Universidad de Chile, Santiago, Chile*  
 4 months, supervised by GAËL CHAUVIN and PATRICIO ROJO
- 2018** Bachelor's thesis on Testing the Averaged Inhomogeneous Cosmology model by using maximum likelihood estimation to fit light-curves of Type Ia supernovae  
*Centre de Recherche Astrophysique de Lyon (CRAL), Lyon, France*  
 2 months, supervised by THOMAS BUCHERT and ASTA HEINESEN

## Teaching

- 2022** Teacher in Python in 3rd-year of Bachelor (16h, Physics sector)  
*Université Grenoble Alpes, Grenoble, France*
- 2021** Teacher in Mathematics in 1st-year of Bachelor (32h, Biology sector)  
*Université Grenoble Alpes, Grenoble, France*
- 2019-2020** Examiner in Mathematics and Physics in Preparatory Class (Physics sector)  
*Buffon High-School, Paris, France*
- 2017-2018** Volunteer teacher of French as a foreign language for migrants  
*Lyon, France*

## Outreach

- 2015-2019** Volunteer to the national event French nights of stars ('Nuits des étoiles') in the context of the organisation SAFGA (Société Astronomique de France – Groupe Alsace)  
 → Public education to the night sky by using my own 200 mm-telescope  
*Strasbourg, France*

## Organisations

- since 2014** Member of the astronomical organisation SAFGA. Board member between Jan. 2020 and Jan. 2023.  
*Strasbourg, France.*

## Awards

**2019** Winner of the International Physicists' Tournament with the team of the University of Lyon at the French scale; Second at the international scale.

## Languages

French (native)  
English (fluent, CAE certification C1)  
Spanish, German (intermediate)  
Italian, Russian (beginner)

## Computer skills

Python (advanced)  
Matlab (intermediate)  
IDL, Fortran, C (beginner)

## Publications

### **First author: 2 publications**

Desgrange, C., Chauvin, G., Christiaens, V. et al., 2022, A&A, 664, A139.  
Desgrange, C., Heinesen, A., and Buchert, T., 2019, International Journal of Modern Physics D, 28, 1950143.

### **Co-author: 11 publications, including one in second author**

Palma-Bifani, P., Chauvin, G., Bonnefoy, M. et al., 2023, A&A, 670, A90.  
Le Coroller, H., Nowak, M., Wagner K. et al., 2022, A&A, 667, A142.  
Chen, X., Choquet, E., Vigan, A., et al., 2022, Proceedings of the SPIE, 666, A32.  
Gallenne, A., Desgrange, C., Milli, J. et al., 2022, A&A, 665, A41.  
Gratton, Keller, Diolaiti, et al., 2022, Proceedings of the SPIE, 12184, 121844F.  
Boccaletti, Chauvin, Wildi, et al. 2022, Proceedings of the SPIE, 12184, 121841S.  
Bonavita, M., Gratton, R., Desidera, S. et al., 2021, A&A, 663, A144.  
Asensio-Torres, R., Henning, T., Cantalloube, F. et al., 2021, A&A, 652, A101.  
Gratton, R., D'Orazi, V., Pacheco, T. A. et al., 2020, A&A, 646, A61.  
Cantalloube, F., Gomez-Gonzalez, C., Absil, O. et al., 2020, Proceedings of SPIE, 11448, 114485A.  
Le Coroller, H., Nowak, M., Delorme, P. et al., 2020, Astronomy and Astrophysics, 639, A113.

Note: A&A stands for the journal Astronomy and Astrophysics.