

# Curriculum Vitae of Patrick Barth

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## Contact

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## Work experience

Since 2019                      **Postgraduate Researcher**  
                                 University of St Andrews, School for Physics and Astronomy & School for Earth  
                                 and Environmental Sciences, UK  
                                 St Andrews Centre for Exoplanet Science  
Feb. - July 2017                **Student Research Assistant**  
                                 Max Planck Institute for Astronomy, Heidelberg, Germany

## Education

Since 2019                      **PhD in Astronomy**  
                                 University of St Andrews, School for Physics and Astronomy & School for Earth  
                                 and Environmental Sciences, UK  
                                 St Andrews Centre for Exoplanet Science  
                                 Supervisor: Dr. Christiane Helling & Dr. Eva Stüeken  
2017 - 2018                      **International Student**  
                                 University of Washington, Seattle, United States of America  
2017 - 2019                      **Master of Science in Physics** (2-year program)  
                                 Final Grade: 1.1 (very good), University of Heidelberg, Department of Physics and  
                                 Astronomy, Germany  
2013 - 2017                      **Bachelor of Science in Physics**  
                                 Final grade: 1.7 (good), University of Heidelberg, Department of Physics and As-  
                                 tronomy, Germany  
2013                                **Abitur**  
                                 Final grade: 1.1 (very good), Karl-Friedrich-Gymnasium Mannheim, Germany

## Awards

2017 - 2018                      **Baden-Württemberg-Stipendium**  
                                 Scholarship for distinguished students studying abroad  
2013                                High School Graduation Award of the German Physical Society (DPG)

## Publications

- **Barth, P.** et al., *Magma Ocean Evolution of the TRAPPIST-1 planets*, submitted to Astrobiology
- Barnes, R., et al., incl. **Barth, P.**, 2020, *VPLanet: The Virtual Planet Simulator*, PASP 132 024502
- Carone, L., Baeyens, R., Mollière, P., **Barth, P.**, et al., *Equatorial anti-rotating day side wind flow in WASP-43b elicited by deep wind jets?*, accepted at MNRAS. <https://arxiv.org/abs/1904.13334>.

## Talks

18 Dec 2019	<b>"Magma Ocean Model for Terrestrial (Exo)Planets"</b> PSF-Coffee, MPIA, Heidelberg, Germany
27 March 2019	<b>"Coupled Atmosphere-Interior Model for Terrestrial Planets - Application to Early Earth"</b> General Meeting SPP 1833 Habitable Earth, DFG, Cologne, Germany
30 April 2017	<b>"Zirkulation mit Wolkenbildung in planetaren Atmosphären"</b> (G)Astro-Seminar, jDPG, Bad Kreuznach, Germany
11 Jan. 2017	<b>"Large-Scale Circulation with Cloud Formation in Planetary Atmospheres"</b> PSF-Coffee, MPIA, Heidelberg, Germany

## Posters

6-8 April 2020	<b>"MOVES IV: Modelling the influence of stellar XUV-flux and cosmic rays on the atmospheric composition of HD 189733 b"</b> UKEXOM, Birmingham, UK (cancelled due to COVID-19)
9-13 March 2020	<b>"MOVES IV: Modelling the influence of stellar XUV-flux and cosmic rays on the atmospheric composition of HD 189733 b"</b> Cloud Academy II, Les Houches, France (cancelled due to COVID-19)
15-20 Sept. 2019	<b>"Desiccation of the TRAPPIST-1 Planets During Their Magma Ocean Phase"</b> EPSC-DPS Joint Meeting, Geneva, Switzerland (presented by Ludmila Carone)
24-28 June 2019	<b>"Desiccation of the TRAPPIST-1 Planets During Their Magma Ocean Phase"</b> Astrobiology Science Conference, Seattle, WA, USA (presented by Rory Barnes)
24-28 June 2019	<b>"Desiccation of the TRAPPIST-1 Planets During Their Magma Ocean Phase"</b> "Star-planet interaction" workshop, Ringberg, Germany (presented by Ludmila Carone)

## Outreach

Since 2019	<b>Mobile Planetarium</b> University of St Andrews, School for Physics and Astronomy
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## Programming Skills

- Intermediate: Python, C
- Basics: Fortran

## Languages

- Native language: German
- Fluent: English
- Basics: Spanish, French

## Volunteer Experience

	<b>University of St Andrews Liberal Democrats</b>
Since 2020	Treasurer
	<b>SaintsLGBT+, University of St Andrews Student Association</b>
Since 2019	Postgraduate Officer
	<b>Hector-Seminar Alumni Association</b>
Since 2019	Vice President
2015 - 2019	Secretary
2013 - 2019	<b>Election Worker</b> in Mannheim, Germany