



Aaron David Schneider

astrophysicist

About Me

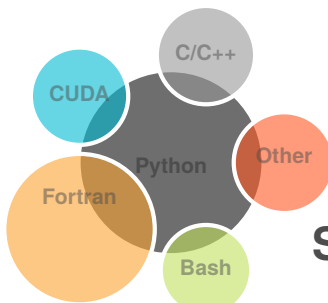
nationality
german

birthplace
Siegen, Germany

birthdate
19.03.1996

civil status
married, 1 child

Programming



github:
@AaronDavidSchneider

Languages

german
first language

english
fluent

Interests

hiking
singing
programming

Education

10/15-08/18	Bachelor in Physics	Universität Heidelberg
	<ul style="list-style-type: none">• grade: 2.0 (UK: B)• specialization: astrophysics and computational physics• bachelor thesis: Surface waves in protoplanetary disks induced by outbursts• supervisor of thesis: Prof. Dr. Cornelis P. Dullemond	
10/18-10/20	Master in Physics	Universität Heidelberg and Max Planck Institute for Astronomy
	<ul style="list-style-type: none">• grade: 1.5 (UK: A)• specialization: Machine Learning and GPU Computing• core courses: astronomical techniques, general relativity, theoretical astrophysics, cosmology, environmental physics• master thesis: chemical composition of gas giants probed by accretion• supervisor of thesis: Dr. Bertram Bitsch	
11/20-12/23	Doctor of Science: Astronomy	Københavns Universitet and KULeuven
	<ul style="list-style-type: none">• title: Connecting the atmosphere with the interior in hot giant exoplanets• Horizon 2020, Marie Skłodowska-Curie grant No 860470 (Chameleon)• double degree program with Leuven and København• supervisors: Dr. Ludmila Carone, Prof. Dr. Uffe Gråe Jørgensen, Prof. Dr. Leen Decin	

Schooling

09/06-06/14	Highschool	Evangelisches Gymnasium Siegen-Weidenau
	<ul style="list-style-type: none">• advanced courses: physics, math• A-level: Grade 1.6 (UK: A)	

Experience

09/14-06/15	Year abroad	Carnforth
	Theology studies	
2016-2019	Private tuition	Heidelberg
	Highschool math and physics	
2020	Tuition	Heidelberg
	Tuition of Introduction to Astronomy & Astrophysics II	
2023	Art project	København
	Computing the analemma for a sculpture made by danish artist Bjørn Nørregård	

Fist-Author Refereed Publications

- 09/18 **Schneider, A. D.; Dullemond, C. P.; Bitsch, B.** A & A, Volume 617, id.L7
Surface waves in protoplanetary disks induced by outbursts: Concentric rings in scattered light
- 08/21 **Schneider, A. D. and Bitsch, B.** A & A, Volume 654, id.A71
How drifting and evaporating pebbles shape giant planets I: Heavy element content and atmospheric C/O
- 10/21 **Schneider, A. D. and Bitsch, B.** A & A, Volume 654, id.A72
How drifting and evaporating pebbles shape giant planets II: volatiles and refractories in atmospheres
- 02/22 **Schneider, A. D.; Carone L.; Decin L.; Jørgensen, U.G.; Mollière, P.; Baeyens, R.; Kiefer, S.; Helling, C.** A & A, Volume 664, id.A56
Exploring the deep atmospheres of HD 209458b and WASP-43b using a non-gray general circulation model
- 10/22 **Schneider, A. D.; Carone L.; Decin L.; Jørgensen, U.G.; Helling, C.** A & A, Volume 666, id.L11
No evidence for radius inflation in hot Jupiters from vertical advection of heat

Currently in review

- 10/23 **Schneider, A. D.; Mollière, P.; Louppe, G.; Carone, L.; Jørgensen, U. G.; Decin, L.; Helling, C.** arXiv:2311.00775
Harnessing machine learning for accurate treatment of overlapping opacity species in GCMs

Other Refereed Publications

- 05/21 **Bitsch, B.; Raymond, S. N.; Buchhave, L. A.; Bello-Arufe, A.; Rathcke, A. D.; Schneider, A. D.** A & A, Volume 649, id.L5
Dry or water world? How the water contents of inner sub-Neptunes constrain giant planet formation and the location of the water ice line
- 03/22 **Mollière, P.; Molyarova, T.; Bitsch, B.; Henning, T.; Schneider, A.D.; Kreidberg, L.; Eistrup, C.; Burn, R.; Nasedkin, E.; Semenov, D.; Mor-dasini, C.; Schlecker, M.; Schwarz, K. R.; Lacour, S.; Nowak, M.; Schulik, M.** The Astrophysical Journal, Volume 934, Issue 1, id.74
Interpreting the atmospheric composition of exoplanets: sensitivity to planet formation assumptions
- 09/22 **Bitsch, B.; Schneider, A. D.; Kreidberg, L.** A & A, Volume 665, id.A138
How drifting and evaporating pebbles shape giant planets. III. The formation of WASP-77A b and τ Boötis b
- 01/23 **Samra, D.; Helling, C.; Chubb, K. L.; Min, M.; Carone, L.; Schneider, A. D.** A & A, Volume 669, id.A142
Clouds form on the hot Saturn JWST ERO target WASP-96b
- 06/23 **Sainsbury-Martinez, F.; Tremblin, P.; Schneider, A. D.; Carone, L.; Baraffe, I.; Chabrier, G.; Helling, C.; Decin, L.; Jørgensen, U. G.** MNRAS, Volume 524, 1316–1325
Evidence of Radius Inflation in Radiative GCM Models of WASP-76b due to the Advection of Potential Temperature
- 09/23 **Chatziastros, L.; Bitsch, B.; Schneider, A. D.** A & A, Forthcoming article
Constraining the formation history of the HAT-P-11 system by atmospheric abundances

Volunteer Engagement

2015-2019	voluntary work at a christian university group Hochschul SMD Heidelberg	Heidelberg
2022-	sound engineering local church	København