Curriculum Vitae

Name: Stefan Hackstein

Address: Horner Landstr. 372, 22111 Hamburg

Born: Wesel (NRW, Germany) 12. Feb. 1990

Nationality: German

family status: single

Languages:
Mother language: German
English: fluent
French: intermediate
Dutch: intermediate
Spanish: intermediate

email: stefan.hackstein@hs.uni-hamburg.de

mobile: +49 (0)177 5162131

Personal home page: github.com/shackste/publications

Present Position:

Research assistant and PhD student

Hamburg Observatory (University of Hamburg)

Gojenbergsweg 112, 21029 Hamburg,

Germany

Formation and Career

Since 05/2017	PhD student with the University of Hamburg Duties: - conduct and execute research plan - analytical, semi-analytical & numerical simulations - publication of research results in journals and conferences - software engineering - teach exercise courses Tools: - Python, C, C++ - magnetohydrodynamical simulation software ENZO - high performance computing cluster - my own statistical software package PrEFRBLE[1] Thesis title: Measure cosmic magnetic fields with extreme astrophysical messengers
Since 07/2015	Research assistant with the University of Hamburg Duties: - data science - big data analysis - model evaluation - statistical inference Tools: - IDL, R - Bayesian statistics - Monte-Carlo experiments
04/2015 - 08/2017	University of Hamburg Master of Science, Physics Focus: Particle physics & Astrophysics Grade: 1.63 Thesis title: On the propagation of ultrahigh-energy cosmic rays in the local Universe
10/2011 - 07/2015	University of Hamburg Bachelor of Science, Physics Grade: 1.90 Thesis title: Ultrahigh-energy cosmic rays and the study of cosmic magnetism
08/2010 - 08/2011	Travel Europe
08/2009 - 07/2010	Max-Weber-Berufskolleg, Düsseldorf Abitur Focus: maths, business administration Grade: 3.0
08/2007 - 07/2009	Hermann Janßen GmbH, Alpen & Mercator Berufskolleg, Moers Office administrator apprenticeship Duties: - recording and filing of orders and other data - customer service - measurement of construction sites - proposal preparation Tools: - MS-office Grade: 3.66

Awards

2017: award for best teaching class at physics department of University Hamburg

Additional Activity

2019: Tutoring high school students in experiments

2018: Preparing and executing public experiment in course of open day at Observatory Bergedorf

2017 - 2019: Teacher of exercise classes (quantum and theoretical physics) at University of Hamburg

2013 - 2015: Tutor (quantum and theoretical physics) at University of Hamburg

Skills

scientific research, advanced mathematics, data science, statistics, data visualization, high-performance and parallel computing, software development, git, Linux, MS-Office

Programming languages:
Python, **LaTex**, IDL, C, C++, MATHEMATICA, MAPLE, *R, java(script) ...*
(**daily usage**, experienced, *basics*)

Hobbies

Musician (Drums, Guitar, Piano), Writer, Hiking

Interests

scientific development, economy and economics, game theory, psychology

Publications:

Hackstein, S., Rodrigues, L. F. S., Vazza, F., Brüggen, M. 2020, MNRAS, in proc., "What can Fast Radio Bursts tell us about intergalactic magnetic fields?"

Hackstein, S., Vazza, F., Brüggen, M., Gaensler, B. M., Heesen, V. 2019, MNRAS, 488, 4220-4238, "Fast radio burst dispersion measures and rotation measures and the origin of intergalactic magnetic fields"

Hackstein, S., Vazza, F., Brüggen, M., Sorce, J. G., Gottlöber, S. 2019, Proceedings of IAU Focus Meeting 8, 103-104, "Propagation of UHECRs in the local Universe and origin of cosmic magnetic fields"

Boulanger, F., Enßlin, T., Fletcher, A., Girichides, P., **Hackstein, S.**, Haverkorn, M., Hörandel, J. R., Jaffe, T., Jasche, J., Kachelrieß, M., Kotera, K., Pfrommer, C., Rachen, J. P., Rodrigues, L. F. S., Ruiz-Granados, B., Seta, A., Shukurov, A., Sigl, G., Steininger, T., Vacca, V., van der Velden, E, van Vliet, A., Wang, J., 2018, JCAP, 2018, 049, "IMAGINE: a comprehensive view of the interstellar medium, Galactic magnetic fields and cosmic rays"

Hackstein, S., Vazza, F., Brüggen, M., Sorce, J. G., Gottlöber, S. 2018, MNRAS, 475, 2519-2529, "Simulations of ultra-high Energy Cosmic Rays in the local Universe and the origin of Cosmic Magnetic Fields"

Vazza, F., Brüggen, M., Gheller, C., **Hackstein, S.**, Wittor, D., and Hinz, P. M., 2017, CQG, 34, 23, "Simulations of extragalactic magnetic fields and of their observables"

Hackstein, S., Vazza, F., Brüggen, M., Sigl, G., Dundovic, A. 2016, MNRAS, 462, 3660-3671, "Propagation of ultrahigh energy cosmic rays in extragalactic magnetic fields: a view from cosmological simulations"