



Stefan Hackstein

Physicist, Statistician

- February 12th, 1990
- Horner Landstr. 372, 22111 Hamburg, Germany
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- German

Social Network

- LinkedIn Profile
- Github Publications Page Link

Languages

- German ● ● ● ● ●
- English ● ● ● ● ●

Soft Skills

- independence ● ● ● ● ●
- output-driven
- motivated
- proactive
- focused
- inquisitive
- communication ● ● ● ● ●
- collaborative
- expressive

Working Experience

- 2015 – 2020 **Research assistant** Universität Hamburg
Perform simulations of physical models and evaluate results by statistical comparison to observations.
- 2007 – 2009 **Office administrator** Tiefbau Janßen GmbH & Mercator Berufskolleg
File orders and customer data, measure construction sites and prepare proposals.

Education

Study

- 2017 – 2020 **PhD in physics** Universität Hamburg
Focus: perform simulations and evaluate with Bayesian statistics.
PhD Thesis ($\emptyset 1, 0$)
Measure cosmic magnetic fields with extreme astrophysical messengers.
- 2015 – 2017 **MSc Physics** Universität Hamburg
Focus: particle physics & astrophysics
Master Thesis ($\emptyset 1, 0$)
On the propagation of ultrahigh-energy cosmic rays in the local Universe
- 2011 – 2015 **BSc Physics** Universität Hamburg
Focus: particle physics & astrophysics
Bachelor Thesis ($\emptyset 1, 0$)
Ultrahigh-energy cosmic rays and the study of cosmic magnetism

School

- 2009–2010 **Abitur** Max-Weber-Berufskolleg
Focus: maths, business administration

Teaching

- 2017–2019 **exercise classes** Universität Hamburg
quantum physics & theoretical physics
- 2019 Tutor high school students in experiments
- 2013–2015 **Tutor** Universität Hamburg
quantum physics & theoretical physics

Awards

- 2018 3. best teaching class Universität Hamburg

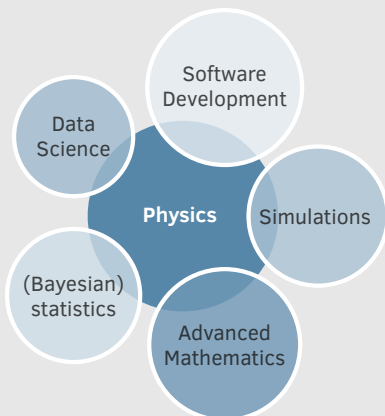
Extra-Curricular Activities

- 2020 Organize scientific focus-session www.astro.ru.nl/imagine
- 2018 prepare and execute public experiment
- 2010 – 2011 Travel Europe

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Hard Skills



git Linux parallel computing
data visualization scientific writing
teaching Monte-Carlo experiments
work planning LaTeX MS-Office

Programming

Python



IDL



C, C++



R



Publications

- 2020, subm. **Fast radio burst redshift distribution and the missing baryons**
Hackstein, S., Brüggen, M., Vazza, F.
Monthly Notices of Royal Astronomical Society
- 2020 **Redshift estimates for fast radio bursts and implications on intergalactic magnetic fields**
Hackstein, S., Brüggen, M., Vazza, F., Rodrigues, L. F. S.
MNRAS
- 2020 **PreFRBLE: Probability Estimates for Fast Radio Bursts to obtain model Likelihood Estimates**
Hackstein, S.
<https://github.com/shackste/PreFRBLE>
- 2019 **Fast radio burst dispersion measures and rotation measures and the origin of intergalactic magnetic fields**
Hackstein, S., Vazza, F., Brüggen, M., Gaensler, B. M., Heesen, V.
MNRAS
- 2019 **Propagation of UHECRs in the local Universe and origin of cosmic magnetic fields**
Hackstein, S., Vazza, F., Brüggen, M., Sorce, J. G., Gottlöber, S.
Proceedings of IAU Focus Meeting 8
- 2020 **Simulations of ultra-high Energy Cosmic Rays in the local Universe and the origin of Cosmic Magnetic Fields**
Hackstein, S., Vazza, F., Brüggen, M., Sorce, J. G., Gottlöber, S.
MNRAS
- 2016 **Propagation of ultrahigh energy cosmic rays in extragalactic magnetic fields: a view from cosmological simulations**
Hackstein, S., Vazza, F., Brüggen, M., Sigl, G., Dundovic, A.
MNRAS

September 9, 2020

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