External Job Advertisement Reg. Nr. 5-915/26-D

At Martin-Luther-Universität Halle-Wittenberg, Institute of Physics, a 4-year fixed-term position at the earliest possible date, for a

Research Associate (m-f-d)
in the Cluster of Excellence "Center for Chiral Electronics"

to be filled on the basis of pay grade 13 TV-L (75 %).

CCE is an alliance of leading research institutions based in Halle, Berlin and Regensburg, Germany. CCE explores chirality as a key resource for next-generation electronic technologies. The fundamental research focuses on understanding and controlling chiral phenomena at the atomic length and ultrafast time scale, bridging physics, chemistry, and materials science. The vision is to develop the basis for efficient, scalable, and sustainable technologies for advanced information processing. The cluster fosters interdisciplinary collaboration and aims to translate fundamental insights into new directions for electronic devices and quantum technologies. We offer an international environment, excellent infrastructure, and targeted support to help you develop your individual strengths, advance your career, and become part of a dynamic team. www.chiralelectronics.de

Work tasks:

- Modeling of chiral nanowires and chiral crystals (effective models, tight binding)
- Calculation and analysis of magnetoelectric transport properties in chiral materials: spin and orbital transport phenomena, light-induced transport, magnetoresistance
- Simulation and model development (analytical and numerical) of non-reciprocal transport in chiral materials
- Presentation and publication of scientific results
- Active participation in the events of CCE and strengthening of collaborations

The opportunity to gain scientific and personal qualifications is given.

Requirements:

- Completed university degree (Master) in physics or comparable degree
- Very good knowledge of theoretical solid state physics: transport theory, effective and/or tight-binding models or chiral properties
- Excellent programming skills (e.g. Python, Fortran, C++)
- Excellent analytical skills
- High degree of self-motivation, good English skills (equivalent to B2)

We offer:

- Integration in the interdisciplinary and multi-institutional CCE network with excellent scientific infrastructure and mentoring
- Structured doctoral training, international visibility, and participation in joint workshops, conferences, and research stays at our partner sites
- a family-friendly, diversity-oriented, and intercultural work environment at a certified family-oriented university, including holiday childcare

Applications from disabled persons, including those of equal status (as certified by the *Bundesagentur für Arbeit* / Federal Employment Agency), will be given preferential consideration if they are equally suitable and qualified. Women are strongly encouraged to apply. Applications from individuals of all nationalities are explicitly welcome. Applicants with a degree that was not obtained at a German university must submit a Statement of Comparability for Foreign Higher Education Qualifications from the Central Office for Foreign Education (ZAB) (https://www.kmk.org/zab/central-office-for-foreign-education) as proof of equivalence upon conclusion of the employment contract. You can find ways to apply for a financial grant for this under: https://www.anerkennung-in-deutschland.de/html/de/pro/anerkennungszuschuss.php#.

If you have any questions, please contact Prof. Dr. Annika Johansson, Tel.: +49 (0)345 55-25455, Email: annika.johansson@physik.uni-halle.de.

Please send your application, referring to Reg. Nr. 5-915/26-D, with the required documents to Martin-Luther-Universität Halle-Wittenberg, Center for Chiral Electronics, 06099 Halle (Saale) until 20/02/2026.

Preferably, submit your application in German or English electronically with the online portal https://www.chiralelectronics.de/career/ using the corresponding job ad number (Reg. Nr. 5-915/26-D).

This job posting is subject to potential budgetary restrictions.

Application costs will not be reimbursed by Martin Luther University. Application documents will only be returned if a sufficiently stamped envelope is enclosed. Electronic applications are welcome.