



The Department of Materials- and Geosciences at Technical University of Darmstadt is offering a position within the research groups Theory of Magnetic Materials and In-situ Electron Microscopy as

## Researcher/Postdoc (all genders) – 100%

within the Collaborative Research Centre (CRC) 1548 – FLAIR in the Z05 INF project Sustainable Research Data Management. The position starts at January 1<sup>st</sup>, 2023 and is a fixed-term contract for 4 years.

The CRC FLAIR (Fermi Level Engineering applied to oxide electroceramics: [www.mawi.tu-darmstadt.de/FLAIR](http://www.mawi.tu-darmstadt.de/FLAIR)) provides an interdisciplinary environment with 20 cooperative projects from theory, synthesis, and characterisation, which will establish a novel concept for predicting properties of oxide electroceramics in dependence on their composition and processing. The concept will be developed for mixed ionic-electronic conductors for ion exchange membranes, for photo- and electrocatalysts for water splitting, as well as piezo- and dielectrics for transducers and capacitors.

The INF project aims to (1) set up a distributed electronic lab notebook system to enable collection of data and metadata for reproducible workflows; (2) implement a hierarchical data repository for sample tracking, data sharing, and open data publication; (3) establish a coherent research data management system focusing on workflows and dataflows by appropriately defining common (meta-)data structure.

Your tasks include identifying the requirements for implementing research data management with respect to the type and amount of data collected by the researchers, as well as determining a suitable form and concept for integrating these data into an electronic data management system. Other tasks include handling heterogeneous software, software interfaces and data formats as well as establishing a web interface and implementing an electronic lab book. Furthermore, you will train CRC staff in the use of the electronic lab book and the data management system and be responsible for the introduction of machine learning and its application on the various data retrieved by the diverse methods within the CRC.

You have completed a PhD in Materials Science, Chemistry, Physics or Engineering and possess a strong affinity for digital data management/IT as well as knowledge of meta data formats. Systematic thinking, an independent, constructive and well-structured way of working as well as an integrative personality with interdisciplinary communication skills are required. In addition, excellent English (written and spoken) and programming skills (Python) are expected. You should also have a strong service orientation towards researchers and experiences in interdisciplinary collaborative projects.

FB 11 – Material- und  
Geowissenschaften

Fachgebiet  
Theorie magnetischer  
Materialien (TMM)



Prof. Dr. Hongbin Zhang

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Datum  
18.11.2022



TECHNISCHE  
UNIVERSITÄT  
DARMSTADT

You will find detailed information about our proposed research projects on our [SFB FLAIR website](#).

Technical University of Darmstadt intends to increase the number of female faculty members and encourages female candidates to apply. In case of equal qualifications, applicants with a degree of disability of at least 50 or equal will be given preference. Wages and salaries are according to the collective agreements on salary scales, which apply to the Technische Universität Darmstadt (TV-TU Darmstadt).

Please send your electronic application including CV, copy of certificates and grades, and a letter of motivation (all in one PDF-file) stating the code no. to Ms. Jessica Bagnoli, [jessica.bagnoli@tu-darmstadt.de](mailto:jessica.bagnoli@tu-darmstadt.de). For further information you may contact Prof. Andreas Klein ([andreas.klein@tu-darmstadt.de](mailto:andreas.klein@tu-darmstadt.de)).

By submitting your application, you agree that your data may be stored and processed for the purpose of filling the vacancy. You can find our privacy policy on our [webpage](#).

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