



We announce the opening of a

PhD Position
(Ausschreibungskennziffer - position ID (28/2019))



within the Geomathematics and Geoinformatics Group at the Faculty of Geosciences, Geoengineering and Mining. The topic will be on mathematical analysis of inverse problems in geomagnetism.

Salary: pay bracket TV-L13 (50%, an upgrade to 75% may be possible)
Duration: 3 years

We are a mathematically oriented research group in a strong geoscientific environment. Our research focuses on the mathematical analysis of various problems in geoscience (often based on potential theoretic concepts), on the one hand, and the development of corresponding numerical methods, on the other hand. Although the position is located at the Faculty of Geosciences, Geoengineering and Mining, it is primarily aimed at mathematicians or candidates with a strong mathematical background.

Responsibilities:

The candidate will be working in inverse problems arising from recent topics in geomagnetism. A particular focus is on inverse magnetization problems in spherical and non-spherical geometries. This primarily comprises the mathematical analysis of the problem, but also the development of numerical solution strategies. Applications can be found, e.g., in source separation of satellite data and the reconstruction of global and local crustal magnetizations. The precise topic can be adapted to the interests of the candidate.

Requirements:

The candidate should have a master's degree in mathematics or a related field with strong background in mathematics. Deeper knowledge in one of the areas inverse problems, constructive approximation, and/or partial differential and integral equations is desirable but not a must. Furthermore, the candidate should be highly motivated and interested in interdisciplinary research between mathematics and geoscience.

For further information, contact Prof. Dr. Christian Gerhards (e-mail: christian.gerhards@geophysik.tu-freiberg.de, Tel.: +49 3731 39 2880, <https://tu-freiberg.de/en/fakult3/gy/mageo>).

Applications with the typical information (letter of motivation, curriculum vitae, course certificates, name of possible reference) shall be sent to

TU Bergakademie Freiberg - Dezernat für Personalangelegenheiten – D-09596 Freiberg

by April 15, 2019, mentioning the position ID (Ausschreibungskennziffer) 28/2019. Copies of the material can be send in advance directly to Prof. Dr. Christian Gerhards (e-mail: christian.gerhards@geophysik.tu-freiberg.de).

