The Institute of Climate-Smart Agriculture of the Johann Heinrich von Thünen-Institute, Federal Research Institute for Rural Areas, Forestry and Fisheries, invites applications for a four-year

Doctoral Researcher (65% of full time employment contract)

position in the project „CO_2 balance and controlling factors in near-natural and managed savanna ecosystems in Southern Africa – CARBOCONTROL".

The project is linked to the German-Southern African research consortium „Ecosystem Management Support for Climate Change in Southern Africa" (EMSAfrica, https://www.emsafrica.org/), which investigates the impacts of land use and climate change in South African ecosystems. The PhD position is associated to a subproject that focuses on the land-atmosphere exchange of greenhouse gases in different land-use systems in South Africa.

The specific focus of the PhD project is in the estimation of CO_2 balances in South African ecosystems by using micrometeorological measurement methods. The doctoral researcher is expected to integrate the results of the subproject and to investigate the biophysical and management-related factors that control CO_2 and energy exchange at the near-natural and managed savanna sites, by using statistical analysis tools.

The PhD position is based in a research group at the Thünen Institute of Climate-Smart Agriculture in Braunschweig. The work of the group mainly focuses on developing micrometeorological measurement methods of greenhouse gases and air pollutants. The emphasis of the offered position is mostly on desk-based work and data analysis, and to a lesser extent on field work, although some field work periods in South Africa are planned.

Following the German academic employment law (Wissenschaftszeitvertragsgesetz) § 2 Paragraph 1, sentence 1, the employment contract is limited in time and aimed at applicants who, in addition to the employment relationship, are seeking their own academic further education, in particular doctoral studies. The Thünen Institute of Climate-Smart Agriculture cooperates with various universities.

Tasks include:

- Quality control and synthesis of various datasets of CO_2 and energy exchange of savanna sites
- Analysing the controlling factors of the carbon cycle using statistical analyses
- Assessment of management options for the sustainable use of near-natural savanna ecosystems as well as investigating temporal trends of the carbon cycle
- Assistance in the implementation and organisation of research and field work in Africa
- Writing scientific publications

Requirements:

- University degree (M.Sc. or equivalent) in Agricultural Sciences, Natural Sciences, Soil Sciences, Geoecology, Geography, Biology, Meteorology, Environmental Physics or similar
- Good understanding of the C and N cycles in soils, plants and the atmosphere
- Experience with micrometeorological measurement technologies is desirable
- Secure in data handling with knowledge in R, Python, Matlab or another programming language
- Knowledge in savanna ecology is desirable
- Good team spirit, flexibility, high motivation and ability to conduct independent research work
- Scientific curiosity and strong motivation to complete doctoral studies
- Excellent verbal and written English

The employment contract is governed by the provisions of the collective agreement for civil service (TVöD); remuneration is according to pay category 13 TVöD.

The Thünen Institute supports gender equality and particularly encourages applications from female candidates.

Disabled candidates are encouraged to apply and will be preferentially considered if equally qualified for the job; for this position, a minimum level of physical fitness is required.

For further enquiries, please contact Dr. Christian Brümmer (christian.bruemmer@thuenen.de, Tel.: 0531 596 2614). For further information of the Thünen Institute of Climate-Smart Agriculture, see: https://www.thuenen.de/en/ak/, and for further information on the EMSAfrica research project, see: www.emsafrica.org.

Interested applicants should send their application with a motivation letter, CV in a tabular form, job references and certificates of completed studies as one pdf-document with the keyword "CARBOCONTROL" latest by 20.03.2019, preferably electronically to the email address ak@thuenen.de, or by post to the address:

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