Job vacancy at the Thünen Institute
of Climate-Smart Agriculture (TI-AK)

Institut für Agrarklimaschutz

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The Thünen Institute of Climate-Smart Agriculture (TI-AK) invites applications for a

Research scientist (PhD student)

to model atmospheric nitrogen deposition and its effects on greenhouse gas exchange in different ecosystems. Over the last decades, emissions from agriculture, industry and traffic led to a concentration increase of reactive N compounds in the atmosphere, which triggered local N deposition rates as well as long distance N transport. While an increased N availability may lead to higher gross primary productivity in some ecosystems (e.g. in forests), other sites like N limited peatlands show highly sensitive reactions. There is still little knowledge about the relationship between atmospheric N deposition and the exchange of greenhouse gases, particularly CO_2 and N_2O. Based on datasets from conventional measurement techniques as well as from current micrometeorological observations, this relationship will be further investigated and modeled at different time scales.

Job description/methods:

- Data synthesis on the relationship between N deposition and greenhouse gas exchange under different land use,
- Modeling atmospheric N deposition based on current micrometeorological observations,
- Development and implementation of an emission routine for dry N deposition models,
- Literature studies,
- Scientific publications and project reports.

Requirements:

- MSc. (or similar) in Meteorology, Computer Sciences, Agriultural, Soil, Forest or Environmental Sciences, Geography, Geoecology, Biology or related disciplines,
- Experience in application and development of SVAT models,

- Good programming skills and experience in processing large data sets (MATLAB, etc.),
- Knowledge of transformation and exchange processes of N and C compounds in plant, soil and atmosphere,
- Interest in model development and analytical work,
- High motivation and interest in tackling scientific problems, good command of English.

Payment will be according to the German pay scale TVöD 13 .
Besides the employment, the opportunity for scientific professional training is provided, especially to do a PhD. The own results achieved in the project can be used for the PhD thesis.

The Thünen Institute supports gender equality at work and encourages female candidates to apply for this position.
Handicapped applicants are specially considered if equally qualified for the job; a minimum of physical fitness is required.
Enquiries and applications with the usual documentation (CV, cover letter, certificates) including the keyword 'NITROSPHERE PhD 2, Nr-Modellierung' shall be send (preferably by email) to:
Dr. Werner Kutsch (werner.kutsch@ti.bund.de) or
Dr. Christian Brümmer (christian.bruemmer@ti.bund.de).

Applications received by August 2, 2013 will receive full consideration.