

The Leibniz Institute for Agriculture and Bioeconomy (ATB) as a nationally and internationally acting institute is researching at the interface of biological and technical systems. ATB's research aims to create foundations for sustainable bio-economic production systems. We develop and integrate new technologies and management strategies for a knowledge-based, site-specific production of biomass, and its use for food, as bio-based materials and fuels - from basic research to application.

For the research area: „Ammonia and methane emissions from pig and dairy husbandry, Measuring–Modelling – Mitigation“, we are seeking for a

**Scientist (Postdoc) (m/f/d)**  
for the topic  
**Modelling and Simulating Gaseous Emissions**  
for two years, starting in June 2019

We develop the basics for modelling and simulation of ammonia and greenhouse gas emissions from pig and dairy housing systems with high level of animal welfare.

Emission factors as well as the effects of emission reduction measures shall be modelled for dairy and pig farms.

**Your tasks**

- Model development and establishment of numeric conditions for modelling of NH<sub>3</sub>- and GHG emission fluxes. Especially:
  - Model development, modelling and simulating ammonia and greenhouse gas fluxes
  - Data processing, data analysis, statistical analysis and research data management
  - Writing reports and scientific publications in peer-reviewed journals
  - Writing research proposals

**Our expectations**

- **Your professional qualification profile:**
  - University degree (diploma/master), PhD in natural sciences or related engineering disciplines
  - Profound research experience and knowledge in: design and control of natural ventilation systems, determination of ventilation rates of naturally ventilated livestock buildings, investigation of air flow patterns in and around buildings, parameter studies and sensitivity analyses, proved by qualification and final theses
  - Research experience with a boundary layer wind tunnel
  - Computer applications: CFD and simulation software (STAR-CCM+, ANSYS Fluent, etc.)
  - Excellent knowledge of modelling and analytical software packages (MATLAB, R, ...) as well as of model verification, sensitivity analyses and parameter studies, proved by qualification and final theses
  - Very good knowledge of statistical data analysis
  - Fluent in written and spoken English
- **Personal qualification:**
  - Independent, self-responsible, reliable and result-oriented way of working
  - Ability to analyse complex data and situations
  - Team spirit, ability to cooperate, flexibility, commitment, ability to work under pressure, reliability
  - Willingness to travel

**We offer**

- Excellent infrastructure for carrying out scientific work
- Attractive, interdisciplinary working environment and very good conditions to develop your own scientific career and your network
- Family-friendly working conditions that foster the compatibility of work and family life

The salary is based on your qualification and professional experience according to TV-L E13.  
The position is limited to two years.

Further information can be obtained from **Prof. Dr. Thomas Amon** (e-Mail: [tamon@atb-potsdam.de](mailto:tamon@atb-potsdam.de))  
If you would like to participate in our interdisciplinary research, please apply until **April, 10<sup>th</sup> 2019** by e-mail  
(if possible one PDF document), quoting the reference number **2019-5-1** under  
[karriere@atb-potsdam.de](mailto:karriere@atb-potsdam.de).

Equality of opportunity is part of our personnel policy. Disabled applicants with adequate qualification will be preferentially considered.

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