

The Leibniz Institute for Agricultural Engineering and Bioeconomy is a pioneer and a driver of bioeconomy research. We create the scientific foundation to transform agricultural, food, industrial and energy systems into a comprehensive bio-based circular economy. We develop and integrate techniques, processes and management strategies, effectively converging technologies to intelligently crosslink highly diverse bioeconomic production systems and to control them in a knowledge-based, adaptive and largely automated manner. We conduct research in dialogue with society - knowledge-motivated and application-inspired.

In the **Engineering for Livestock Management** competence area, we combine veterinary research on stress parameters and germ contamination with environmental research on emissions and flow processes in and around animal husbandry facilities.

To support our ammonia emission modelling, the working group "**Barn climate and emission modelling**" is looking for a

### Student Assistant (m/f/d)

The working group develops, adapts and validates empirical and mechanistic models for describing and predicting temperature distribution and air quality in naturally ventilated barns and pollutant transport processes in connection with livestock farming. The models are further used to evaluate options for adapting barn systems to climate change and reducing pollutant emissions.

Spatial and temporal variations of key variables (e.g., urination volume distribution, near surface wind speed or urine puddle pH) have been found to considerably affect the projected temporal dynamics of the emissions in our mechanistic model. Thus, those variations shall be further analysed and modelled in order to refine the emission model.

#### Your responsibilities

- Time series analysis of different on-farm datasets
- Literature review on pH dynamics of urine / slurry in relation to gas release
- Support in emission model refinement
- Support in preparation of publications and presentations
- Support of validation measurements

#### Your qualifications

- Profound knowledge in time series analysis
- Programming skills in R desirable
- Knowledge in theoretical chemistry desirable
- Independent work, personal commitment, reliability, enjoyment of basic science, solution-oriented action, ability to work in a team and willingness to cooperate

#### We offer

- Attractive, interdisciplinary working environment and very good conditions for developing your scientific career and network
- The best prerequisites for independent, interdisciplinary research in an ambitious team and with modern and excellent infrastructure
- Access to national and international networks for your scientific development
- Family-friendly working conditions that promote the compatibility of work and family life
- Extensive remote work opportunities
- Company-owned electric bicycles for business trips
- Participation on the VBB company ticket

This position consist of up to 40 hours per month and is limited until **December 31<sup>st</sup>, 2022**. The salary is based on your qualification and professional experience 10,63 € / hour or 12,37 € / hour with Bachelor degree.

For further information please contact **Dr. Sabrina Hempel** (E-Mail: [shempel@atb-potsdam.de](mailto:shempel@atb-potsdam.de)) and visit our website [www.atb-potsdam.de](http://www.atb-potsdam.de).

If you would like to contribute your professional competence to our interdisciplinary research, please apply by the following deadline **July 25<sup>th</sup>, 2022** using ATB's online application form for the job advertisement, **reference code 2022-5-11**, at <https://www.atb-potsdam.de/en/career/vacancies>. Applications received after the application deadline cannot be considered.

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

By submitting an application, you agree that your job application documents will be stored for a period of six months, even in the case of an unsuccessful application. Further information on the processing, storage and protection of your personal data can be found at <https://www.atb-potsdam.de/en/services/data-protection-declaration-for-the-application-process>.

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