

First announcement

Course on indirect calorimetry



Directly following the 8th International Symposium on Energy and Protein Metabolism and Nutrition in Rostock, Germany from September 15-18, 2025, **Wageningen University, the Netherlands (WU)**, and the **INRAE, Rennes, FR** will jointly organize a workshop on indirect calorimetry and selected applications. The course will be held **on September 18-19, 2023 at the Research Institute for Farm Animal Biology in Dummerstorf**.

For whom?

The course is aimed at educating those (PhD students, technical staff, researchers) who use measurements of gaseous exchange (CO_2 , O_2 , CH_4 , etc) in their research program, and/or are setting up facilities in which those measures can be performed, either with or without climate control. Depending on the level of experience of the audience, we intend to provide lectures/practicals for sensible experimental designs and advanced data analysis.

Organization

The organization will be a joint effort of Wageningen University and INRAE and will be hosted by the Research Institute for Farm Animal Biology (FBN) in Dummerstorf. Parts of the course will be taught by experts in the field from other institutions.

Preliminary program

In the course, attention will be paid to the basics of indirect calorimetry, i.e. i) setting up a calorimetry unit; ii) the measurement of gas exchange; iii) dealing with the data: Brouwer's equation and modelling techniques. Furthermore, selected applications will be presented and discussed, including i) combining calorimetry with stable isotope research; ii) separating activity related from activity free heat production; iii) measuring methane emission in respiration chambers or using alternative techniques. Depending on the level of experience of participants, parts of the course will be devoted to experimental designs and advanced data analysis.

The course will comprise lectures, computer practicals and dedicated sessions for exchanges between participants. We are trying to create an opportunity for hands-on experience on-site.

More information

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