DATA ANALYTICS AND DIGITAL TOOLS APPLIED TO LIVESTOCK PRODUCTION

6 – 8 November 2024

Venue: Center for Quantitative Genetics and Genomics, Aarhus University, C. F. Møllers Allé 3, 8000 Aarhus C., Denmark

---

Instructor: Dr. Guilherme J. M. Rosa

Professor, Department of Animal & Dairy Sciences and Department of Biostatistics & Medical Informatics, University of Wisconsin-Madison (https://www.gjmrosa.org/)

Course overview

This intensive short course is designed for advanced graduate students (PhD and MSc) and professionals engaged in various fields of animal sciences, regardless of whether they work in academic or industrial settings. The course is particularly beneficial for those involved in genetics and breeding, nutrition, physiology, management, and reproduction. Participants with an interest in leveraging data analytics and modern machine learning techniques for livestock precision management will find this course particularly relevant. The course will cover essential concepts and methods for applying statistics and machine learning to high-dimensional livestock data. This includes data from sensors, imaging, and farm management systems. The three-day program will feature lectures and hands-on demonstrations with real-world data, as well as practical software tools tailored for attendees.

Topics*

- Big Data and Data Science in Livestock
- Multidimensional Regression and Classification
- Machine Learning Techniques
- Cross-validation and Predictive Metrics
- Primer on Image Processing and Analysis
- Precision Livestock Management Applications
- Mining Operational Farm Data
- Planning Research Studies in Animal Sciences

* Concepts and theory will be illustrated with applications involving wearable sensor technology, computer vision, spectroscopy, genetics/genomics, among others.

Limited seats are available on a first come first serve basis. Use this link to register for the course, or scan the QR code:
https://events.au.dk/dataanalyticsanddigitaltoolsappliedtolivestockproduction

A small charge of 1050 DKK (approx. 150 USD) will be made to register for this course. The fee covers tea/coffee & snacks as well as lunch each course day.
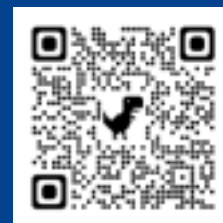
CENTER FOR QUANTITATIVE GENETICS AND GENOMICS QGG

Contact: Please forward your requests for information to Grum Gebreyesus at grum.gebreyesus@qgg.au.dk