GIULIO GIAGNONI

I am specialized in ruminant nutrition with focus on environmental and climate impact of dairy production. During my PhD I have been working on reducing the climate impact of dairy cows by using conventional feeding strategies and by identifying climate-efficient phenotypes. I am now continuing my work as post-doc. I am experienced with scientific communication, data handling, and a wide range of experimental practises (digestibility, nutrient balances, indirect calorimetry, emissions and animal behaviour).

WORK EXPERIENCE

NA | 2023
Post-doc
Department of Animal and Veterinary Sciences, Aarhus University
AU Viborg, Denmark

2023 | 2020
PhD
Department of Animal and Veterinary Sciences, Aarhus University
AU Viborg, Denmark
- Data analysis with focus on nutrition and between-animal variation
- Oral and writing scientific communications
- Writing small and big funding applications

2020 | 2019
Research Assistant
Department of Animal Science, Aarhus University — AU Viborg, Denmark
- Data analysis skills with focus on predictive model and cross-validation
- Development and modification of lab methods

2015 | 2014
Assistant Herd Manager
R Walker & Son, Home Farm — Cheltenham, United Kingdom
300 milking cows

2014 | 2013
Dairy Assistant
JADEN GRAY FARMING Ltd. — Otorohanga, New Zealand
500 milking cows

EDUCATION

2023 | 2020
PhD Student
Department of Animal and Veterinary Sciences, Aarhus University
AU Viborg, Denmark

Thesis link

2019 | 2017
Master of Science
Department of Animal Science, Aarhus University — Aarhus, Denmark
- Running production trial
- Data analysis with R
- Course with focus on animal nutrition

2017 | 2015
Bachelor of Science
Department of Agricultural, Forestry and food Sciences — Turin, Italy
- General agriculture studies with focus on agronomy, crops and animal production

CONTACT INFO

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AU Pure

SOCIAL MEDIA

Linkedin
Orcid
ResearchGate
GitHub

KEY SKILLS

- Independent and critical thinking
- Communication – academic and non writing, oral and online
- Problem solving
- Animal nutrition experiment: procedures and designs
- Data handling and analysis (R mainly)
- Teamworking and mentoring

LANGUAGES

- English
- Italian (Native)
- Danish (Mid)

SELECTED PRIZES

2024 **EAAP Young Scientist Award**
EAAP 2024 — Firenze, Italy
With abstract: ""Enteric methane and digestibility: are these phenotypes correlated in dairy cows?"

2024 **Photo Competition 2024**
Danish National Research Foundation — Copenhagen, Denmark
Photo: "The digestive system of dairy cows". Link

2022 **Nutreco Young Researchers' Prize**
Nutreco — Amsterdam, The Netherlands
Best project for greenhouse gas emission from livestock. Link

SELECTED FUNDS

2022 **Gustaf DeLaval Fund**
DeLaval — Tumba, Sweden
Precision herd and production management for sustainable food production

SELECTED COURSES

2021 **Experimental animals**
Department of Animal Science, Aarhus University — AU Viborg, Denmark

2021 **Modelling cookbook**
MoSAR, INRAE — Virtual

2022 **Project Management: A Practitioner's Approach to the Managerial Process**
Aarhus University — Aarhus, Denmark

2022 **Indirect calorimetry**
ISEP 2022 — Granada, Spain

SELECTED PROGRAMS

Ruminant degradation profile (Shinyapp, R)
Program to compute degradation profile of protein, fiber or other nutrient using in sacco technique with fistulated cows. The program was originally made for Feedstuff Evaluation course at Animal Science Master at Aarhus University in 2022, the code is availabe on my GitHub.
https://gigiapps.shinyapps.io/rumen_degradation_profile/

Model accuracy evaluation package (R package)
This package allow to obtain rapidly model accuracy evaluation parameters for either a single model, multiple model of the same type, or multiple models of the different type. Based on code from https://animalnutrition.org/software, available for free on GitHub.
https://github.com/giuliogiagnoni/modRMSE

SELECTED PUBLICATIONS

2025

Effect of Dietary Fat Source and Concentration on Feed Intake, Enteric Methane, and Milk Production in Dairy Cows
Giagnoni, Giulio, Lund, Peter, Johansen, Marianne and Weisbjerg, Martin R.. Journal of Dairy Science. 2025, 108, p 553–567.
DOI: 10.3168/jds.2024-25446

2025

Relationship between Pyrimidines, Purines, and Fatty Acids in Milk of Dairy Cows Fed Distinct Carbohydrate Types: {{A}} Metabolomic Approach
Giagnoni, Giulio, Weisbjerg, Martin Riis, Errico, Michela, Lapris, Marco, Poulsen, Nina Aagaard, Thomsen, Julia Prangchat Stub, Gallo, Antonio and Rocchetti, Gabriele. JDS Communications. 2025, 6, p 24–28.
DOI: 10.3168/jdsc.2024-0612

2024

Feed Intake in Housed Dairy Cows: Validation of a Three-Dimensional Camera-based Feed Intake Measurement System
Giagnoni, G., Lassen, J., Lund, P., Foldager, L., Johansen, M. and Weisbjerg, M. R.. animal. 2024, 18, p 101178.
DOI: 10.1016/j.animal.2024.101178

2024

How Much Can Performance Measures Explain of the Between-Cow Variation in Enteric Methane?
Giagnoni, Giulio, Friggens, Nicolas C., Johansen, Marianne, Maigaard, Morten, Wang, Wenji, Lund, Peter and Weisbjerg, Martin R.. Journal of Dairy Science. 2024, 107, p 4658–4669.
DOI: 10.3168/jds.2023-24094

2021

Effect of Exogenous Dietary Phytase and Concentrate Mixtures Based on Faba Beans, Rapeseed Meal or Soybean Meal as Main Protein Source on Phytate and Total Phosphorus Excretion in Dairy Cows
Giagnoni, G., Lund, P., Sehested, J. and Johansen, M.. Animal Feed Science and Technology. 2021, 276, p 114913.
DOI: 10.1016/j.anifeedsci.2021.114913