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Education:

- PhD student in Animal and Food Science (2023-)
- Master student in Life and Food Science (2019-2021)
- Bachelor student in Processing Technologies (2015-2019)

Research areas:

- Food Science and Technology
- Animal Nutrition
- ML in Animal Genetics and Nutrition

Brief description of Ph.D project:

Tail biting (TB) in pigs is a behavioral anomaly of a multifactorial nature, linked to management aspects (availability of manipulable materials, air quality, housing density, health status), which can occur even in optimal situations causing serious injuries and economic losses. The most promising long-term strategy for mitigating TB is to reduce the incidence of the phenomenon through animal genetic improvement. But to monitor and evaluate lesions, it is necessary to use various methods, including methods of machine learning, computer vision and various image analysis applications. So, the main goal of the project is the development of methodologies for monitoring interactions between animals, thus allowing the large-scale phenotyping of social behaviors, necessary for the rapid identification of biters and to allow selective interventions. The originality of this

research is lays to: 1) usage of image analysis as a method of detecting phenotypes for the genetic selection of behavioral traits; 2) integration of social interaction analysis methodologies (network analysis) with competitive models; 3) potentially, the development of an automated artificial vision system for the identification of TB in groups of pigs from a selection unit.

Supervisor:

Professor Valentina Bonfatti

Publications: Google scholar link

<https://scholar.google.com/citations?hl=en&user=oLWjyWEAAAAJ>