

## Special Issue

# Towards Machine Learning and Artificial Intelligence in the Farm-to-Fork Industry

### Message from the Guest Editor

Due to rapid development of precision livestock farming (PLF) and the availability of high-throughput information from sensors throughout the entire agricultural food chain, massive data has become available. Sensors produce data which represent the animal's behavior as well as their environment (e.g. gas emissions, water quality) up to the transportation and processing of food. These PLF technologies have been proposed to help transition towards a more sustainable agriculture. The challenge of PLF technology nowadays is how to combine the enormous amount of (especially) heterogeneous data and subsequently model this data using novel techniques such as Machine Learning and Artificial Intelligence techniques. The topics of interest for this Special Issue include, but are not limited to, the following:

- Advanced data-driven automated phenotyping using ML/AI
- Ontology design for Agrifood industry
- Data fusion techniques for Agrifood
- Machine learning using heterogenous PLF technology
- Improving traceability in the Agrifood using novel data driven techniques

---

### Guest Editor

Dr. Miel Hostens

Department of Population Health Sciences, Faculty of Veterinary Medicine, Utrecht University, 3584 CL Utrecht, The Netherlands

---

### Deadline for manuscript submissions

closed (30 June 2022)



## Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.3



[mdpi.com/si/91572](https://mdpi.com/si/91572)

*Applied Sciences*  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[applsci@mdpi.com](mailto:applsci@mdpi.com)

[mdpi.com/journal/  
applsci](https://mdpi.com/journal/applsci)





# Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.3



[mdpi.com/journal/  
applsci](https://mdpi.com/journal/applsci)



## About the Journal

### Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

---

### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo  
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,  
20133 Milano, Italy

---

### Author Benefits

#### Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, CAPIus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q1 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)