

## Publications

### Cattle:

- El Moutaouakil Khalid, Falih Noureddine. 2024. Deep learning-based classification of cattle behavior using accelerometer sensors. *IAES International Journal of Artificial Intelligence* 13(1): 524-532. ISSN: 2089-4872, 2252-8938. <https://doi.org/10.11591/ijai.v13.i1.pp524-532>
- Piscopo, N.; Matera, R.; Cotticelli, A.; Trapanese, L.; Tamburis, O.; Cimmino, R.; Salzano, A. Investigation of Climate Effects on the Physiological Parameters of Dairy Livestock (Cow vs. Buffalo). *Sensors* 2024, 24, 1164. <https://doi.org/10.3390/s24041164>
- Lovarelli D., G. Minozzi, A. Arazi, M. Guarino, F. Tiezzi. 2024. Effect of extended heat stress in dairy cows on productive and behavioral traits. *Animal* 18 (3). <https://doi.org/10.1016/j.animal.2024.101089>
- Boyer C. N., K. E. Cavazos, J. A. Greig, S. M. Schexnayder. 2024. Influence of risk and trust on beef producers' use of precision livestock farming. *Computers and Electronics in Agriculture* 218. <https://doi.org/10.1016/j.compag.2024.108641>
- Bergman N., Y. Yitzhaky, I. Halachmi. 2024. Biometric identification of dairy cows via real-time facial recognition *Animal* 18(3). <https://doi.org/10.1016/j.animal.2024.101079>
- Hamidi D., Grinnell N. A., Komainda M., Wilms L., Riesch F., Horn J., Hamidi M., Traulsen I., and Isselstein J. 2024. Training cattle for virtual fencing: Different approaches to determine learning success. *Applied Animal Behaviour Science* 273. <https://doi.org/10.1016/j.applanim.2024.106220>
- Graham J. R., Montes M. E., Pedrosa V. B., Doucette J., Taghipoor M., Araujo A. C., Gloria L. S., Boerman J. P., Brito L. F. 2024. Genetic parameters for calf feeding traits derived from automated milk feeding machines and number of bovine respiratory disease treatments in North American Holstein calves. *Journal of Dairy Science*, 107(4):2175-2193. <https://doi.org/10.3168/jds.2023-23794>
- Pretto, A., Savio, G., Gottardo, F., Uccheddu, F., Concheri, G. 2024. A novel low-cost visual ear tag based identification system for precision beef cattle livestock farming. *Information Processing in Agriculture* 11(1):117-126. <http://doi.org/10.1016/j.inpa.2022.10.003>

### Poultry:

- Depuru B. K., S. Putsala, P. Mishra. 2024. Automating poultry farm management with artificial intelligence: Real-time detection and tracking of broiler chickens for enhanced and efficient health

monitoring. *Tropical Animal Health and Production* 56(2) <https://doi.org/10.1007/s11250-024-03922-2>

- Li M., Zhou Z., Zhang Q., Zhang J., Suo Y., Liu J., Shen D., Luo L., Li Y., Li, Chunmei. 2024. Multivariate analysis for data mining to characterize poultry house environment in winter. *Poultry Science* 103(5). <https://doi.org/10.1016/j.psj.2024.103633>
- Borgonovo F., Ferrante V., Grilli G., Guarino M. 2024. An innovative approach for analysing and evaluating enteric diseases in poultry farm. *Acta IMEKO* 13(1), <http://doi.org/10.21014/actaimeko.v13i1.1627>

#### Pigs:

- Luo, Y.; Xia, J.; Lu, H.; Luo, H.; Lv, E.; Zeng, Z.; Li, B.; Meng, F.; Yang, A. Automatic Recognition and Quantification Feeding Behaviors of Nursery Pigs Using Improved YOLOV5 and Feeding Functional Area Proposals. *Animals* 2024, 14, 569. <https://doi.org/10.3390/ani14040569>
- Philipp Hesecker, Tjard Bergmann, Marina Scheumann, Imke Traulsen, Nicole Kemper 1 & Jeanette Probst. 2024. Detecting tail biters by monitoring pig screams in weaning pigs. *Sci Rep* 14:4523. <https://doi.org/10.1038/s41598-024-55336-7>
- Han Huia, Xue Xianglong, Li Qifeng, Gao Hongfenga, Wang Rong, Jiang Ruixiang, Ren Zhiyu, Meng Rui, Li Mingyu Guo Yuhang, Liu Yu, Ma Weihong. 2024. Pig-ear detection from the thermal infrared image based on improved YOLOv8n. *Intell Robot* 4(1):20-38. <https://doi.org/10.20517/ir.2024.02>

#### Other:

- Almasi Fazela, Stear, Michael, Khansefid Majida, Nguyen Hiend, Desai Aniruddhae, Pryce Jennie. 2024. Innovative use of sensor technology to study grazing behaviour and its associations with parasitic resistance in sheep. *Small Ruminant Research* 232. <https://doi.org/10.1016/j.smallrumres.2024.107223>
- McPhee M.J., Edwards C., Harden S., Naylor T., Phillips F. A., Guppy C., Hegarty R. S. 2024. GrassGro™ simulation of pasture, animal performance and greenhouse emissions on low and high sheep productivity grazing systems: 1-year validation and 25-year analysis. *Animal* 18(3) <https://doi.org/10.1016/j.animal.2024.101088>
- Himel Galib Muhammad Shahriar, Islam Md Masudul, Rahaman Mijanu. 2024. Vision Intelligence for Smart Sheep Farming: Applying Ensemble Learning to Detect Sheep Breeds. *Artificial Intelligence in Agriculture* 11:1-12. <https://doi.org/10.1016/j.aiia.2023.11.002>
- Edwardes F., van der Voort M., Hogeveen H. 2024. Quantifying the economic and animal welfare trade-offs of classification models in precision livestock farming for sub-optimal mobility

management. *Computers and Electronics in Agriculture*, 219. <https://doi.org/10.1016/j.compag.2024.108767>

- Wade C., Trotter M., Chang A., Steele C., Prihodko L., Bailey D.W. 2024. Use of Global Positioning System Tracking to Assess Landscape Distribution in Extensive Small Ruminant Operations. *Rangeland Ecology and Management*, 94:29-37. <http://doi.org/10.1016/j.rama.2024.01.010>
- Arshad M. F., Burrai G. P., Varcasia A., Sini M. F., Ahmed F., Lai G., Polinas M., Antuofermo E., Tamponi C., Cocco R., Corda A., Parpaglia M. L. P. 2024. The groundbreaking impact of digitalization and artificial intelligence in sheep farming. *Research in Veterinary Science* 170 <http://doi.org/10.1016/j.rvsc.2024.105197>
- Hao, M., Sun, Q., Xuan, C., Zhang, X., Zhao, M., Song, S. 2024. Lightweight Small-Tailed Han Sheep Facial Recognition Based on Improved SSD Algorithm. *Agriculture (Switzerland)* 14(3). <http://doi.org/10.3390/agriculture1403046>
- Gonçalves P., Marques M. D. R., Belo A. T., Monteiro A., Morais J., Riegel I., Braz F. 2024. Exploring the Potential of Machine Learning Algorithms Associated with the Use of Inertial Sensors for Goat Kidding Detection. *Animals* 14 (6). <http://doi.org/10.3390/ani14060938>