

PERSONAL INFORMATION **Francesco Maria Tangorra**

POSITION **Assistant Professor**

WORK EXPERIENCE

- 2012-today** **Assistant Professor**
Department of Health, Animal Science and Food Safety “Carlo Cantoni” (VESPA), Università degli Studi di Milano
[Scientific Sector: AGR/09 Agricultural Mechanization](#)
- 2005-2012** **Assistant Professor**
Department of Veterinary Science and Technology for Food Safety (VSA), Università degli Studi di Milano
[Scientific Sector: AGR/09 Agricultural Mechanization](#)
- 2001-2004** **PhD student**
Department of Veterinary Science and Technology for Food Safety (VSA), Università degli Studi di Milano
- 1999-2001** **Grant holder**
National Research Council (CNR) - Institute of Agricultural Engineering, Università degli Studi di Milano.

EDUCATION AND TRAINING

- 2004** **PhD in Animal Nutrition and Dietetics**
Università degli Studi di Milano
[Dissertation topic: Automation of dairy farms: Automatic Milking System \(AMS\) and conventional milking parlour comparison;](#)
- March-July 2003** **Visiting scholar**
Agricultural and Biological Engineering Dept., Penn State University - Pennsylvania (USA)
[Spectroscopic determination of somatic cell counts in milk](#)
- 2000** **Training course**
Azienda Sperimentale “Vittorio Tadini”, Piacenza
[Innovation, development and management of agricultural enterprises](#)
- 1999** **Training course**
Istituto Regionale Lombardo di Formazione (IREF) - Milano
[Computerized management of livestock waste](#)
- 1998** **Master’s degree in Agricultural Science**
Università degli Studi di Milano
[Dissertation topic: Building typologies and environmental conditions in intensive rabbit breeding](#)
- 1994 (4 months)** **Technical training period**
Slovak Agricultural University, Nitra - Slovakia
University of Agricultural Sciences, Gödöllő - Hungary
[Tempus Joint European Project](#)

PERSONAL SKILLS

Mother tongue(s) **Italian**

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	Independent user	Independent user	Independent user	Independent user	Independent user

Communication skills

Good communication skills gained through my experience as university teacher and speaker at national and international conferences

Organisation/managerial skills

Research Unit Manager of research projects

Job-related skills

Expert in Agricultural Mechanization with particular reference to: conventional and automatic milking systems (AMS); conventional and automatic feeding systems (AFS) for dairy cows

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Independent user	Independent user	Independent user

- Good command of Microsoft Office tools (Word, Excel, Power Point)
- Good command of statistical software (JMP 13 Pro, SAS 9.4)

Driving license

B, boat license

ADDITIONAL INFORMATION

Main Publications
(ISI/Scopus)

- Tangorra F.M., Calcante A. 2018. Energy consumption and technical-economic analysis of an automatic feeding system for dairy farms: results from a field test. DOI:10.4081/jae.2018.869. pp.228-232. In JOURNAL OF AGRICULTURAL ENGINEERING - ISSN:1974-7071 vol. 49 (869)
- Costa A., Veca M., Barberis M., Tosti A., Notaro G., Nava S., Lazzari M., Agazzi A., Tangorra F.M. 2018. Heavy metals on honeybees indicate their concentration in the atmosphere. a proof of concept. DOI:10.1080/1828051X.2018.1520052. pp.1-7. In ITALIAN JOURNAL OF ANIMAL SCIENCE - ISSN:1594-4077
- Tangorra F.M., Leonardi S., Bronzo V., Rota N., Moroni P. 2017. Pre-milking mechanical teat stimulation and milking performance of dairy buffaloes in early lactation. JOURNAL OF AGRICULTURAL ENGINEERING, p.53-55 ISSN:2239-6268 vol. 48 (606)
- Calcante A., Tangorra F.M., Oberti R. 2016. Analysis of electric energy consumption of automatic milking systems in different configurations and operative conditions. JOURNAL OF DAIRY SCIENCE, vol. 99, p.4043-4047, ISSN: 0022-0302, doi: 10.3168/jds.2015-10490
- Zaninelli M., Rossi L., Costa A., Tangorra F.M., Guarino M., Savoini G. 2016. Performance of injected RFID transponders to collect data about laying performance and behaviour of hens. LARGE ANIMALS REVIEW, vol. 22, p. 77-82, ISSN: 1124-4593
- Bueso-Ródenas J., Tangorra F.M., Romero G., Guidobono-Cavalchini A., Díaz J.R. 2016. Effects of pulsation type (alternate and simultaneous) on mechanical milking of dairy goats (I): A study in Alpine goats varying the system vacuum level. SMALL RUMINANT RESEARCH, vol. 144, p.300-304, ISSN: 0921-4488, doi: 10.1016/j.smallrumres.2016.10.008
- Zaninelli M., Tangorra F.M., Costa A., Rossi L., Dell'Orto V., Savoini G. 2016. Improved fuzzy logic system to evaluate milk electrical conductivity signals from on-line sensors to monitor dairy goat mastitis. SENSORS, vol.16, p. 1-18, ISSN: 1424-8220, doi: 10.3390/s16071079
- Costa A., Tangorra F.M., Zaninelli M., Oberti R., Guidobono Cavalchini A., Savoini G., Lazzari M. 2016. Evaluating an e-nose ability to detect biogas plant efficiency: a case study. ITALIAN JOURNAL OF ANIMAL SCIENCE, vol. 15, p. 116-123, ISSN: 1828-051X, doi: 10.1080/1828051X.2016.1147930
- Leonardi S., Penry J.F., Tangorra F.M., Thompson P.D., Reinemann D.J. 2015. Methods of estimating liner compression. JOURNAL OF DAIRY SCIENCE, vol. 98, p. 6905-6912, ISSN: 0022-0302, doi: 10.3168/jds.2015-9380
- Zaninelli M., Rossi L., Costa A., Tangorra F.M., Agazzi A., Savoini G. 2015. Monitoring of goats' health status by on-line analysis of milk electrical conductivity [Monitoraggio dello stato di salute delle capre attraverso l'analisi on-line della conducibilità elettrica del latte]. Large Animal Review 21(2), 81-86
- Zaninelli M., Agazzi A., Costa A., Tangorra F.M., Rossi L., Savoini G. 2015. Evaluation of the Fourier frequency spectrum peaks of milk electrical conductivity signals as indexes to monitor the dairy goats' health status by on-line sensors. Sensors, 15(8), 20698-20716
- Zaninelli M., Rossi L., Costa A., Tangorra F.M., Agazzi A., Savoini G. 2015. Signal spectral analysis to characterize gland milk electrical conductivity in dairy goats. Italian Journal of Animal Science, 14(3), 362-367
- Zaninelli M., Costa A., Tangorra F.M., Rossi L., Agazzi A., Savoini G. 2015. Preliminary evaluation of a nest usage sensor to detect double nest occupations of laying hens. Sensors, 15 (2), 2680-2693
- Caria M., Tangorra F.M., Leonardi S., Bronzo V., Murgia L., Pazzona A. 2014. Evaluation of the performance of the first automatic milking system for buffaloes. Journal of Dairy Science, 97(3), 1491-1498
- Calcante A., Tangorra F.M., Marchesi G., Lazzari M. 2014. A GPS/GSM based birth alarm system for grazing cows. Computers and Electronics in Agriculture, 100, 123-130
- Zaninelli M., Rossi L., Tangorra F.M., Costa A., Agazzi A., Savoini G. 2014. On-line monitoring of milk electrical conductivity by fuzzy logic technology to characterise health status in dairy goats. Italian Journal of Animal Science, 13(2), 340-347
- Guidobono Cavalchini A., Rognoni G.L., Tangorra F.M., Costa A. 2013. Experimental tests on winter cereal: Sod seeding compared to minimum tillage and traditional plowing. Journal of Agricultural Engineering, 44(2), 392-396
- Marchesi G., Leonardi S., Tangorra F.M., Calcante A., Beretta E., Pofcher E., Lazzari M. 2013. Evaluation of an electronic system for automatic calving detection on a dairy farm. Animal Production Science, 53 (10), 1112-1114
- Tangorra F.M., Calcante A., Nava S., Marchesi G., Lazzari M. 2013. Design and testing of a GPS/GSM collar prototype to combat cattle rustling. Journal of Agricultural Engineering, 44(2), 71-76

- Leonardi S., Marchesi G. Tangorra F.M., Lazzari M. 2013. Use of a proactive herd management system in a dairy farm of northern Italy: technical and economic results. *Journal of Agricultural Engineering*, 44(s2), 208-210
- Tangorra F.M., Zaninelli M., Costa A., Agazzi A., Savoini G. 2010. Milk electrical conductivity and mastitis status in dairy goats: Results from a pilot study. *Small Ruminant Research*, 90, 109-113, ISSN: 0921-4488, doi: 10.1016/j.smallrumres.2010.02.006
- Nava S., Tangorra F.M., Beretta E., Lazzari M. 2009. Study and Development of an Integrated Automatic Traceability System for the Bovine Meat Chain. In: 7th World Congress on Computers in Agriculture and Natural Resources. Reno, Nevada, 2009, Red Hood, NY: Curran Associates, ISBN/ISSN: 9781615673902
- Tangorra F.M., Nava S., Beretta E., Lazzari M. 2009. Study and Development of an Integrated System for Slurry Management Monitoring and Electronic Reports Drawing up in Cattle Breeding. In: 7th World Congress on Computers in Agriculture and Natural Resources. Reno, Nevada, 2009, Red Hood, NY: Curran Associates, ISBN/ISSN: 9781615673902
- Zaninelli M. and Tangorra F.M. 2007. Development and testing of a “free-flow” conductimetric milk meter. *Computers and Electronics in Agriculture*, 57(2), 166-176
- Zaninelli M., Tangorra F.M., Castano S., Ferrara A., Ferro E., Brambilla P.G., Faverezani S., Chinosi S., Scarpa P., Di Giancamillo M., Zani D., Zepponi A., Saccavini C. 2007. The O3-Vet project: A veterinary electronic patient record based on the web technology and the ADT-IHE actor for veterinary hospitals. *Computer Methods and Programs in Biomedicine*, 87(1), 68-77
- Pastorelli G., Musella M., Zaninelli M., Tangorra F.M., Corino C. 2006. Static spatial requirements of growing-finishing and heavy pigs. *Livestock Science*, 105, 260-264
- Tangorra F., Zaninelli M. 2006. Development of HW and SW solutions for milk traceability. In: (a cura di): Fedro Zazueta ... [et al], *Computers in Agriculture and Natural Resources. Proceedings of the 4th World Congress*. p. 475-480, St. Joseph: American Society of Agricultural and Biological Engineers (ASABE), ISBN: 1-892769-55-7, Orlando, Florida USA, July 24-26, 2006
- Zaninelli M., Tangorra F. 2006. Conductimetric Milk Meter: Preliminary results. In: (a cura di): Fedro Zazueta ... [et al.], *Computers in Agriculture and Natural Resources. Proceedings of the 4th World Congress*. p. 276-281, St. Joseph: American Society of Agricultural and Biological Engineers (ASABE), ISBN: 1-892769-55-7, Orlando, Florida USA, July 24-26, 2006

Projects

Research Unit Manager - Project: Precision Livestock Unifeed System (PLUS). Research co-funded by Regione Lombardia in the framework of POR FESR 2014-2020 (Axis I, Objective 1.b.1).
Project coordinator: Sgariboldi s.r.l. Partners: Università degli Studi di Milano; PTM s.r.l.
Project duration: 24 months (starting date: 27/01/2017). Project ID 145923, CUP E77H16001570009. Overall financial intervention: € 1.113.089,33

Honours and awards

Beneficiary of the Financing Fund for Basic Research Activities (FFABR) 2017

Memberships

- American Society of Agricultural and Biological Engineers (ASABE)
- Member of the Standing Committee on Farm Management (SCFM) and of the Action Team on Milking Equipments and Methods (AT-FM-02) - International Dairy Federation (FIL/IDF)
- Italian Association of Agricultural Engineering (AIIA)
- Order of Doctors of Agronomy and Doctors of Forestry
- Reviewer for *Journal of Dairy Science*. American Dairy Science Association, Champaign, IL, US

Personal data

I authorize the handling of personal information in this curriculum, according to D.Lgs n. 196/03 and following modifications and Regulations EU 679/2016 (General Regulations concerning Data Protection or GRDP) and art. 7 of University Regulations concerning protection of personal information.

I authorize, according to D.lgs 14/03/2013 n. 33 concerning transparency, in case of conferment of the position and of the fellowship, the publication of this curriculum in the web site of Università degli Studi di Milano in the section “Amministrazione trasparente”, “Consulenti e collaboratori”.

Date, 09/04/2019

Signature