CURRICULUM VITAE

Name: Simone **Surname:** Priori

Nationality: Italian **Gender**: Male **Born:** 15/11/1980, Siena, Italy

Telephone: (office) +39 0761357327 **Skype**: simone.priori

Position: Associated Professor at University of Tuscia, Department of Agriculture and Forest Sciences (DAFNE), from February 2020

Work address: Via San Camillo de Lellis, Viterbo (Italy)

E-mail: simone.priori@unitus.it / priorisimone@gmail.com

Languages: Italian, English (second language)



BRIEF DESCRIPTION

Associate Professor in Pedology at University of Tuscia (Viterbo, Italy), in the Department of Agriculture and Forest Sciences (DAFNE), from February 2020. He is a pedologist with experience in digital soil mapping, proximal soil sensors, and soil conservation. He was a researcher of Italian Council for Agricultural Research and Economics (CREA), Research Centre for Agriculture and Environment, Florence, from 2012 to January 2020.

EDUCATION

-2005-2009: PhD at University of Siena- Earth Science Department. Thesis: "Pedostratigraphy and chronology of Quaternary paleosols in the southern Tuscany, Italy".
-1999-2004: Bachelor and Master degrees at University of Siena- Earth Science Department. *110 / 110 cum laude*

TEACHING EXPERIENCES:

- Applied pedology for forest sciences (Master degree in Conservation and Restoring of Environment and Forest, University of Tuscia) 2021-2022
- Geopedology (Bachelor's degrees in Natural Sciences, in Forest Sciences, and in Mountain Sciences, Rieti) from 2023
- Digital soil mapping and monitoring (Master's degree in Digital Agriculture, Rieti), from 2023.

RESEARCH EXPERIENCES:

- ***Researcher*** at CREA, Council for Research in Agriculture and Economics, (Firenze); from August 2012 to January 2020.
- ***Temporary contract*** at CRA-ABP (Firenze); February 2011 - February 2012; for the development of proximal sensing methods with innovative sensors.
- ***Internship*** at Helmoltz Centre for Environmental Res. (Leipzig, Germany); 21 February – 15 March 2011; soil proximal sensing methods (EMI, Gamma ray, VIS-NIR spectroscopy).
- ***Post-doc grant*** at CRA-ABP (Firenze); July 2009 – May 2010; for the soil survey of experimental vineyards by innovative methods (proximal sensing, GIS and geostatistics).
- ***Internship*** at the Dep. of Soil Management University of Ghent (Belgium), 16 March – 23 May 2009. Electromagnetic induction sensors (EM38 and Dualem) and geostatistics.

PROJECT MANAGEMENT EXPERTISE:

- 2024-2027: research unit leader, Erasmus+ KA220-HED - Cooperation partnerships in higher education, Project Medsoils Challenge "Increasing skills and competences of the future soil experts to face the challenges of climate change in the Mediterranean areas"
- 2024-2025: research unit leader, Tethys-plus project (POR FESR LAZIO 2021/2027, RSI)
- 2019-2020: Italian unit leader of EJP-Soil project during the submission of proposal (left for job moving from CREA to University of Tuscia in February 2020).
- 2019-2020: *research unit leader and WP leader*, SUVISA project (Digital agriculture – sub-project Viticulture), Italian Ministry of Agriculture and Forestry (MIPAAFT) project.
- 2015-2018: *Vice-coordinator and project manager of Core-organic+* "ReSolVe, Restoring Soil functionality of degraded areas within organic Vineyards", 8 partners of 6 countries.
- 2015-2021: *scientific responsible of several research projects of private sector*, regarding viticulture (Chianti Classico wine consortium, Brunello di Montalcino wineries, Barone Ricasoli farm, Petra winery) and hazelnut (Loacker s.p.a.)

INTERNATIONAL PROJECT COLLABORATIONS

- 2021-2023: working group member of LIFE+ PROGNOSES "Strengthening primary and old-growth forest protection in Europe by capitalizing on World Heritage sites"
- 2021-2023: WP leader of THERA (*Topsoil properties Estimation from Hyperspectral Remote sensing for Agriculture*) research project funded by ASI (Italian Spatial Agency).

- 2019-2020: *Task leader H2020 SFS-2018-2*, EXCALIBUR 'Exploiting the multifunctional potential of belowground biodiversity in horticultural farming". Task 1.2, Soil mapping and physico-chemical characterization of experimental fields.
- 2011-2013: working group member of Italy-Israel cooperation 2011 RINGO, "Rootstock-scion interaction in grapes "
- 2008-2012: working group member of LIFE08 ENV/IT/000428 SOILPRO, "Monitoring for soil protection"

ROLES IN INTERNATIONAL MEETINGS AND SCIENTIFIC JOURNALS

- (from 2024): Editorial board member of Oeno One
- (from 2023): Editorial board member of Scientific Reports – Nature.
- (2023) Publication chair and session chair, IEEE International congress of Metrology in Agriculture and Forestry, 6-8 November 2023, Pisa.
- (2019-2021) guest editor for 5 special issues: "Soil and water-related ecosystem services" (Water); "Soil degradation prevention and restoration at farm and field scale" (Agronomy); Improvement of grapevine and soil management in sustainable viticulture (Agronomy), "Remote and proximal sensing applied to agriculture and forest sciences" (Applied Sciences), "Biogeosciences and wine: the management and environmental processes that regulate the terroir effect in space and time" (Frontiers of Environmental Sciences).
- (2017-2021) EGU-European Geoscience Union, session co-convener "Biogeosciences and wine: the management and the environmental processes that regulate the terroir effect in space and time"
- (2018) Scientific Committee member, 1st Metroagrifor, Metrology for agriculture and forestry, 2018, Ancona, Italy
- (2015) EAGE 2015, Chair of 1st Conference on proximal sensing supporting precision agriculture 6-10 september, Turin, Italy. http://www.eage.org/event/?eventid=1279&evp=14756
- (2013) First Divisional 1 Conference of IUSS, session Chairman "Soils in Space in Time" -, September 30th – October 4th 2013, Ulm/Danube, Germany. Chairman di sessione

MEMBERSHIPS: Italian Society of Soil Science (SISS), Italian Society of Pedology (SIPe), European Society for Soil Conservation (ESSC), European Geoscience Union (EGU).

Vice-chair of IUSS (International Union of Soil Science) commission 1.5- Pedometrics

AUTHOR ID: SCOPUS author ID: 23009944500 (57 documents, 928 citations, h-index 18, updated 09/2024), ORCID: https://orcid.org/0000-0002-9095-5833

MOST RELEVANT PAPERS:

- ***Priori, S***., Zanini, M., Falcioni, V., & Casa, R. (2024). Topsoil vertical gradient in different tillage systems: An analytical review. Soil and Tillage Research, 236, 105947. https://doi.org/10.1016/j.still.2023.105947
- Costantini, E.A.C., ***Priori, S***. (2023). Soil quality and health key indicators. Book chapter in: Encyclopedia of Soils in the Environment, Second Edition: Volume 1-5, 3, pp. V3-181–V3-192.
- ***Priori, S***., Mzid, N., Pascucci, S., Pignatti, S., & Casa, R. (2022). Performance of a portable FT-NIR MEMS spectrometer to predict soil features. Soil Systems, 6(3), 66. https://doi.org/10.3390/soilsystems6030066
- Pacchiarelli, A., ***Priori, S.***, Chiti, T., Silvestri, C., & Cristofori, V. (2022). Carbon sequestration of hazelnut orchards in central Italy. Agriculture, Ecosystems & Environment, 333, 107955. https://doi.org/10.1016/j.agee.2022.107955
- Caruso, G., Palai, G., Gucci, R., & ***Priori, S.*** (2022). Remote and proximal sensing techniques for site-specific irrigation management in the olive orchard. Applied Sciences, 12(3), 1309. https://doi.org/10.3390/app12031309
- Stavi, I., Thevs, N., & ***Priori, S.*** (2021). Soil salinity and sodicity in drylands: A review of causes, effects, monitoring, and restoration measures. Frontiers in Environmental Science, 9, 712831. https://doi.org/10.3389/fenvs.2021.712831
- Warren Raffa, D., Antichi, D., Carlesi, S., Frasconi, C., Marini, S., ***Priori, S***., & Bàrberi, P. (2021). Groundcover Mulching in Mediterranean Vineyards Improves Soil Chemical, Physical and Biological Health Already in the Short Term. Agronomy, 11(4), 787. https://doi.org/10.3390/agronomy11040787
- ***Priori, S***., Pellegrini, S., Vignozzi, N., Costantini, E. A. (2020). Soil Physical-Hydrological Degradation in the Root-Zone of Tree Crops: Problems and Solutions. Agronomy, 11(1), 68. https://doi.org/10.3390/agronomy11010068
- Mocali, S., Kuramae, E. E., Kowalchuk, G. A., Fornasier, F., & ***Priori, S.*** (2020). Microbial functional diversity in vineyard soils: sulfur metabolism and links with grapevine plants and wine quality. Frontiers in Environmental Science. https://doi.org/10.3389/fenvs.2020.00075
- ***Priori S***., Barbetti R., Meini L., Morelli A., Zampolli A., D'Avino L. (2019). Towards economic land evaluation at farm scale based on soil physical-hydrological features and ecosystem services. Water, 11(8), 1527. https://doi.org/10.3390/w11081527
- ***Priori, S***., Pellegrini, S., Perria, R., Puccioni, S., Storchi, P., Valboa, G., & Costantini, E. A. (2019). Scale effect of terroir under three contrasting vintages in the Chianti Classico area (Tuscany, Italy). Geoderma, 334, 99-112. https://doi.org/10.1016/j.geoderma.2018.07.048

- Costantini E.A.C., Castaldini M., Diago M.P., Giffard B., Lagomarsino A., Schroers H.J., ***Priori S***., …..Zombardo A. (2018). Effect of soil erosion on agro-ecosystem services and soil functions: a multidisciplinary study in nineteen organically farmed European and Turkish vineyards. Journal of Environm. Manag., 223, 614-624. https://doi.org/10.1016/j.jenvman.2018.06.065
- ***Priori S.***, L'Abate G., Fantappiè M., Costantini E.A.C. (2018). Mapping soil spatial variability at high detail by proximal sensors for new vineyard planning. EQA-Environmental Quality, 30, 9-15. https://doi.org/10.6092/issn.2281-4485/7890
- ***Priori S.***, D'Avino L., Agnelli A.E., Valboa G., Knapic M., Schroers H.J., Akca E., Tangolar S., Kiraz M.E., Giffard B., Fulchin E. (2018). Effect of organic treatments on soil carbon and nitrogen dynamics in vineyard. EQA-Environmental Quality, 31, 1-10, https://doi.org/10.6092/issn.2281-4485/7896
- Braschi, E., Marchionni, S., ***Priori, S***., Casalini, M., Tommasini, S., … Conticelli, S. (2018). Tracing the87Sr/86Sr from rocks and soils to vine and wine: An experimental study on geologic and pedologic characterisation of vineyards using radiogenic isotope of heavy elements. Sci. of the Total Environment, 628–629, 1317–1327. https://doi.org/10.1016/j.scitotenv.2018.02.069
- Tardaguila, J., Diago, M. P., ***Priori, S***., & Oliveira, M. (2017). Mapping and managing vineyard homogeneous zones through proximal geoelectrical sensing. Archives of Agronomy and Soil Science, 64(3), 409–418. https://doi.org/10.1080/03650340.2017.1359411.
- ***Priori, S***., Fantappiè, M., Bianconi, N., Ferrigno, G., Pellegrini, S., & Costantini, E. A. C. (2016). Field-Scale Mapping of Soil Carbon Stock with Limited Sampling by Coupling Gamma-Ray and Vis-NIR Spectroscopy. Soil Science Society of America Journal, 80(4), 954. https://doi.org/10.2136/sssaj2016.01.0018
- ***Priori, S***., Bianconi, N., & Costantini, E. A. C. (2014). Can γ-radiometrics predict soil textural data and stoniness in different parent materials? A comparison of two machine-learning methods. Geoderma, 226–227(1), 354–364. https://doi.org/10.1016/j.geoderma.2014.03.012
- ***Priori, S***., Martini, E., Andrenelli, M. C., Magini, S., Agnelli, A. E., Bucelli, P., … Costantini, E. A. C. (2013). Improving Wine Quality through Harvest Zoning and Combined Use of Remote and Soil Proximal Sensing. Soil Science Society of America Journal, 77(4), 1338. https://doi.org/10.2136/sssaj2012.0376