



PIERO TOSCANO

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PhD Ecology and Environmental Systems

Master Applied Meteorology

MSc Sciences and Technology of Navigation
Oceanography and Meteorology

SUMMARY

I possess advanced theoretical and practical knowledge with quantitative and technical skills, coupled with a passion for agricultural and agro-environmental monitoring and modelling. I have solid experience in meteorology, agro meteorology, micrometeorology, climatology, oceanography, remote sensing and earth observation, crop modelling acquired during several national and international research projects.

KEY SKILLS

FIELD - IN SITU ACTIVITIES

- Weather Network Monitoring
- Crop Assessment and Monitoring
- Plant research
- Air quality Network Monitoring
- GHG fluxes

RS & EO

- Micrometeorology
- Radiometers

EXPERIENCE

**National Research Council (CNR)
Institute of Biometeorology
Florence, Italy**

Research technologist, 2017 – present

I specifically focus on issues where remote sensing, ground network monitoring and field measurements can enable both a deeper mechanistic understanding of the underlying processes and more accurate estimation of land characterization especially crop specific agricultural mapping, area, production and productivity estimates at local and regional scale.

Research scientist, 2010 – 2017

Field observations, remote sensing and models to understand spatiotemporal variation in surface fluxes; EO and RS data processing and analysis; Crop type classification and cultivated surface, crop condition assessment; crop yield estimation by EO information; Local, regional and global crop model simulation and forecast; Monitoring and assessment of drought conditions at different scales; Data management, data analysis and processing for air quality modeling and forecasting.

Junior Researcher, 2006 - 2010

Management of meteorological and micrometeorological instrumentations, data acquisition, data analysis and data processing. EO data management and processing. Aircraft observations, planning, operating data acquisition and data analysis. Ship measurements of Carbon dioxide and acetone air-sea fluxes over the southern Atlantic, planning, operating data acquisition and data analysis. Participated in field and experimental campaign held in Italy – Europe – Africa involved in the study of the fluxes of CO₂, H₂O, PM and CH₄ in urban, forest and agriculture areas.

EDUCATION

University of Udine (Italy)

PhD in Ecology and Environmental Systems - 2013

Dissertation: “Modelling and predicting durum wheat yield and quality in Mediterranean environments”

University of Florence (Italy)

Master in Applied Meteorology - 2006

- Spectrometers
- Spectroradiometers
- Radar
- Laser Altimeter

MODELLING

- Crop (phenology, yield, biotic and abiotic stress)
- Greenhouse gases and surface fluxes
- Climate, Weather
- Dispersion Models (BLS and FS)

IT

- Microsoft Office Package
- Basic, Visual Fortran, C, C++
- Matlab, R
- Unix / Linux OS
- Surfer, Grapher
- Photoshop, CorelDRAW
- AutoCAD, GAMBIT
- FLUENT
- Unidata Software
- ArcView, ArcGIS, ENVI, Quantum GIS
- MS Access, MSSQL, MySQL
- EUMETSAT Package, NASA Open Source SW, SNAP
- Campbell Sci,
- LI-COR Biosciences
- Los Gatos Research
- Arduino Open Source

Language

- Italian (Native)
- English (advanced)
- Spanish (intermediate)

Dissertation: “Aerial remote sensing: capability and applications in agro-forest ecosystem”

**Naples Parthenope University,
just University Naval Collage (Italy)**

MSc in Sciences and Technology of Navigation,
(Oceanography and Meteorology object) - 2005

Dissertation: “Modeling Study of Western Boundary Currents variability”.

AWARDS

UNASA Prize – 2013, presenting “Durum wheat modeling: The Delphi system, 11 years of observations in Italy”

SCIENTIFIC PRODUCTIVITY

41 Papers on International Journal (ISI)

Google Scholar H-index: 13, Scopus H-index: 11

12 publications as book chapters on National and International books with ISSN

More than 300 technical reports. Most of them are not available for public consultation (under private enterprise ownership)

CURRENT PROJECTS

AgroSat, <https://www.agrosat.it>

MYCHIF, LOT2 EFSA

<https://www.efsa.europa.eu/en/press/news/170223-0>

MED-GOLD, H2020, <https://www.med-gold.eu/>