



Europass Curriculum Vitae

Personal information

First name(s) / Surname(s) **Gianfranco Rana**

Address(es)

Telephone(s)

Fax(es)

E-mail

Nationality

Date of birth

Gender

Desired employment / Occupational field

contratto di diritto privato per il conferimento di un incarico di lavoro autonomo per lo svolgimento della seguente attività:
installazione di una rete di sensori OpenThread in un campo agricolo sperimentale, seguita dalla raccolta dei dati e dalla stesura di un resoconto della procedura di test. Si dovranno confrontare le misurazioni dei sensori con sensori ad alta precisione forniti in loco, condurre la calibrazione dei sensori. Inoltre, si dovrà valutare la resistenza meccanica della struttura di contenimento dei sensori.

Work experience

From 01.09.2025 G. Rana will retire

Dates 01.01.2002 - now

Occupation or position held Director of Research

Main activities and responsibilities Field research, data analysis and papers preparation, fund raising for National and International research project, project coordinator

Name and address of employer Council for Agricultural Research and Economics (CREA), Center of Agriculture and Environment (AA) via C. Ulpiani 5, 70125 Bari, Italy

Type of business or sector Public research

Dates 01.01.1997 – 31.12.2001

Occupation or position held Senior Researcher

Main activities and responsibilities Field research (micrometeorology, agrometeorology, bioclimatology, GHG emissions from agricultural fields and natural surfaces, sensors and equipment field maintenance and application, data analysis and papers preparation, fund raising for National and International research project

Name and address of employer Ministry of Agriculture, Research Unit for Experimental Agronomical Sciences, C. Ulpiani, 5 70125 Bari, Italy

Type of business or sector Public research

Dates 15.01.1988 – 31.12.1996

Occupation or position held Researcher

Main activities and responsibilities Field research, data analysis and papers preparation

Name and address of employer Ministry of Agriculture, Research Unit for Experimental Agronomical Sciences, C. Ulpiani, 5 70125 Bari, Italy

Type of business or sector Public research

Dates 01.12.1985 – 13.01.1988

Occupation or position held Electronic engineer

Main activities and responsibilities Firmware and electronic designing of payload in Italian satellites

Name and address of employer Carlo Gavazzi Space, Milan, Italy
 Type of business or sector Space industry

Education and training

Dates 20 July 1999
 Title of qualification awarded PhD (Annex E)
 Principal subjects/occupational skills covered Agrometeorology and crop evapotranspiration modelling
 Name and type of organisation providing education and training Institute National Agronomique - Paris – Grignon, France
 Level in national or international classification ISCED 6 (Honorable avec félicitations)

Dates March 1993
 Title of qualification awarded Post-degree Master (Annex E)
 Principal subjects/occupational skills covered Mechanics of Fluids and micrometeorology
 Name and type of organisation providing education and training Université "Pierre et Marie Curie" Paris VI, Paris, France
 Level in national or international classification ISCED 5 (Assez bien)

Dates 15 December 1983
 Title of qualification awarded Degree
 Principal subjects/occupational skills covered Physics
 Name and type of organisation providing education and training University of Bari, Italy
 Level in national or international classification ISCED 5A (102/110)

Personal skills and competences

Mother tongue(s) **Italian**

Other language(s)

Self-assessment

European level (*)

English

French

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
B2	Independent user	B2	Independent user	B1	Basic user	B1	Independent user	B1	Independent user
C2	Proficient user	C2	Proficient user	C2	Proficient user	C1	Proficient user	B1	Independent user

(*) [Common European Framework of Reference for Languages](#)

B2 English level Cambridge certificate in Annex E

Social skills and competences

Teamwork and intercultural skills: for 37 years I have worked in various kinds of working group, together with field and laboratory technicians, foreign colleagues, younger and older people than me.

Communication and training: I held a great number of seminars, speeches and lessons, in Italian, English and French; particular attentions I gave to seminars addressed to children and researchers.

Organisational skills and competences

Leadership: since 1998 is the leader of a small group (from 3 to 7 people) of researchers and technicians addressed to work in theoretical and experimental micrometeorology; I coordinated a European research project (see below) and several units involved in regional, national and international research project in the fields of agriculture, agrometeorology and environment (see details below).

Seminar and workshop organization: I organized several local, national and international seminars and some of international workshops.

Technical skills and competences

I can use most of electronic equipment for the weather variables measurement and the micrometeorology, including data loggers.

As a micrometeorologist, I am specialized in measuring agro-climatic parameters at field level; I measured and modeled the energy exchanges between the soil-crop system and atmosphere; I applied these methods also in non-conventional fields (hill, crop subjected to arid and semi-arid climates, heterogeneous natural surfaces). I have considerable experience in modeling and validating the soil water balance including instrumentation in the field. In the last 15 years I have faced the complex measurement of GHG and climate altering trace gases above natural surfaces.

Computer skills and competences

Competent with most Microsoft Office programs, I programmed in several different languages, including assembler types, and I can rapidly learn and apply new software.

Driving licence

Category B

Additional information

06.09.2025 h-index (Scopus): 32
06.06.2025 citations (Scopus): 3338

Publications:

I am author, with many Italian and foreign colleagues, of more than 220 national and international papers (details in annex E), in the following I list only the International ISI ones in the last 5 years (2021 - now):

Rana, G., Martinelli, N., Famulari, D., Pezzati, F., Muschitiello, C., Ferrara, R.M., 2021. Representativeness of Carbon Dioxide Fluxes Measured by Eddy Covariance over a Mediterranean Urban District with Equipment Setup Restrictions. *Atmosphere*, 12, 197

Rana, G., Ferrara, R.M., Cona, F., De Lorenzi, F., 2021. Actual transpiration and canopy resistance in a Mediterranean vineyard irrigated with saline water. *Irrigation Science*, 39, 469–481

Ferrara, R.M., Di Tommasi, P., Famulari, D., Rana, G., 2021. Limitations of an Eddy-Covariance System in Measuring Low Ammonia Fluxes. *Boundary-Layer Meteorology*, 180, 173–186

Ferrara, R.M., Carozzi, M., Decuq, C., Loubet, B., Finco, A., Marzuoli, R., Gerosa, G., Di Tommasi, P., Magliulo, V., Rana, G., 2021. Ammonia, nitrous oxide, carbon dioxide, and water vapor fluxes after green manuring of faba bean under Mediterranean climate. *Agriculture, Ecosystems and Environment* 315, 107439.

Ferrara, R.M., Campi, P., Muschitiello, C., Leogrande, R., Vonella, A.V., Ventrella, D., Rana, G., 2022. Soil respiration during three cropping cycles of durum wheat under different tillage conditions in a Mediterranean environment. *Soil Use and Management*, 38(4), 1547-1563

Bregaglio, S., Mongiano, G., Ferrara, R.M., Ginaldi, F., Lagomarsino, A., Rana, G., 2022. Which are the most favourable conditions for reducing soil CO₂ emissions with no-tillage? Results from a meta-analysis. *International soil and water conservation research*, 10(3), 497-506

Rana, G., 2022. Preface to "Advances in Ecohydrology for Water Resources Optimization in Arid and Semi-Arid Areas", Castellini, M.; Di Prima, S.; Stewart, R.; Biddoccu, M.; Rahmati, M.; Alagna, V. (Eds.). *Water* 2022, 14, 1830.

Rana, G., De Carolis, G., Gaeta, L., Ruggieri, S., Ferrara, R.M., 2023. Decoupling factor, aerodynamic and canopy conductances of a hedgerow olive orchard under Mediterranean climate. *Theoretical and Applied Climatology*, 153, 349–365

Ferrara, R.M., Campi, P., De Carolis, G., Gaeta, L., Piarulli, M., Ruggieri, S., Rana, G., 2023. Transpiration by sap flow Thermal Dissipation Method: applicability to a hedgerow olive orchard. *Italian Journal of Agrometeorology*, 1, 37-46

Ferrara, R.M., Bruno, M.R., Campi, P., Camposeo, S., De Carolis, G., Gaeta, L., Martinelli, N., Mastroilli, M., Modugno, A.F., Mongelli, T., Piarulli, M., Ruggieri, S., Rana, G., 2024. Water use of a super high-density olive orchard submitted to regulated deficit irrigation in Mediterranean environment over three contrasted years. *Irrigation Science*, 42, 57–73

Ferrara, R.M., Azzolini, A., Ciurlia, A., De Carolis, G., Mastrangelo, M., Minorenti, V., Montaghi, A.,

Piarulli, M., Ruggieri, S., Vitti, C., Martinelli, N., Rana, G., 2024. Carbon and Water Balances in a Watermelon Crop Mulched with Biodegradable Films in Mediterranean Conditions at Extended Growth Season Scale. *Atmosphere*, 15, 945

Garofalo, S. P., Ardito, F., Sanitate, N., De Carolis, G., Ruggieri, S., Giannico, V., Rana, G., Ferrara, R.M., 2025. Robustness of Actual Evapotranspiration Predicted by Random Forest Model Integrating Remote Sensing and Meteorological Information: Case of Watermelon (*Citrullus lanatus*, (Thunb.) Matsum. & Nakai, 1916). *Water*, 17(3), 323

Projects:

Collaboration in European Projects:

- European sweet sorghum productivity network (JOUR-0036);
- AIR1-CT-920041; FAIR3-CT-1913; FAIR-CT96-9584.

Coordinator work package European Projects (among others):

- Stability and mitigation of arable systems in hilly landscapes (STAMINA QLRT-2001-01313);
- Mediterranean dialogue on integrated water management (MELIA FP6 CA-INCO-MED - 517612).

Coordinator European Project:

- Evaluation of the water use efficiency indicators in the Mediterranean region (WEMED FP6 SSA - 517620).

Scientific coordinator National projects (among many others):

- Studio degli scambi di H₂O e CO₂ tra una coltura energetica e atmosfera in ambiente mediterraneo (BIOSEA D.M. 16916/7303/10 del 23/07/2010);
- Monitoraggio in continuo delle tendenze idrologiche dei parametri di qualità delle acque di falda per scopi agro-ambientali (MONITI Progetto Partenariati della Regione Puglia, 20/12/2013);
- Miglioramento delle produzioni olivicole tradizionali e intensive (MOLTI DM n. 13938/661 24.04.2018 Ministero dell'Agricoltura);
- Emissioni di gas serra e ammoniaca dai suoli agricoli (task 4.1 nel progetto AgriDigit-Agromodelli DM n. 36502 of 20/12/2018 Ministero dell'Agricoltura)
- Certificazione dei servizi ecosistemici e valorizzazione dei prodotti delle filiere agroalimentari attraverso tecnologie Blockchain e il tool CARBOND (CARBOND-BC MISE).

Scientific papers revision activity:

Editor and reviewer of several indexed Scientific Journals (Italian Journal of Agrometeorology, Italian Journal of Agronomy, Agricultural Water Management, European Journal of Agronomy, Science of Total Environment, Computer and Electronics in Agriculture, Journal of Hydrology, Agricultural and Forest Meteorology, Water, Atmosphere, among many others).

Autorizzo il trattamento dei miei dati personali ai sensi del Decreto Legislativo 30 giugno 2003, n. 196 "Codice in materia di protezione dei dati personali".

il sottoscritto dichiara di essere consapevole che il presente *curriculum vitae* sarà pubblicato sul sito istituzionale dell'Ateneo, nella Sezione "Amministrazione trasparente", nelle modalità e per la durata prevista dal d.lgs. n. 33/2013, art. 15.

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