



# 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

Occupation or position held

Main activities and responsibilities

Name and address of employer

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

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

Type of business or sector

Dates

Occupation or position held

Main activities and responsibilities

Public research

01.01.1997 – 31.12.2001

Senior Researcher

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

Dates

Occupation or position held

Main activities and responsibilities

Public research

15.01.1988 – 31.12.1996

Researcher

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

Dates

Occupation or position held

Main activities and responsibilities

Public research

01.12.1985 – 13.01.1988

Electronic engineer

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																																				
<b>Education and training</b>																																					
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)																																				
<b>Personal skills and competences</b>																																					
Mother tongue(s)	Italian																																				
Other language(s)																																					
Self-assessment																																					
European level (*)																																					
English	<table border="1"> <thead> <tr> <th colspan="2">Understanding</th> <th colspan="2">Speaking</th> <th colspan="2">Writing</th> </tr> <tr> <th colspan="2">Listening</th> <th colspan="2">Reading</th> <th colspan="2">Spoken interaction</th> </tr> </thead> <tbody> <tr> <td>B2</td><td>Independent user</td> <td>B2</td><td>Independent user</td> <td>B1</td><td>Basic user</td> </tr> <tr> <td>C2</td><td>Proficient user</td> <td>C2</td><td>Proficient user</td> <td>C2</td><td>Proficient user</td> </tr> <tr> <td></td><td></td> <td></td><td></td> <td>B1</td><td>Independent user</td> </tr> <tr> <td></td><td></td> <td></td><td></td> <td>B1</td><td>Independent user</td> </tr> </tbody> </table>	Understanding		Speaking		Writing		Listening		Reading		Spoken interaction		B2	Independent user	B2	Independent user	B1	Basic user	C2	Proficient user	C2	Proficient user	C2	Proficient user					B1	Independent user					B1	Independent user
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Social skills and competences	<p>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.</p> <p>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.</p>																																				

Organisational skills and competences	<p>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).</p> <p>Seminar and workshop organization: I organized several local, national and international seminars and some of international workshops.</p>
Technical skills and competences	<p>I can use most of electronic equipment for the weather variables measurement and the micrometeorology, including data loggers.</p> <p>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.</p>
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
<b>Additional information</b>	<p>06.09.2025 h-index (Scopus): 32  06.06.2025 citations (Scopus): 3338</p> <p><b>Publications:</b>  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):</p> <p>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. <i>Atmosphere</i>, 12, 197</p> <p>Rana, G., Ferrara, R.M., Cona, F., De Lorenzi, F., 2021. Actual transpiration and canopy resistance in a Mediterranean vineyard irrigated with saline water. <i>Irrigation Science</i>, 39, 469–481</p> <p>Ferrara, R.M., Di Tommasi, P., Famulari, D., Rana, G., 2021. Limitations of an Eddy-Covariance System in Measuring Low Ammonia Fluxes. <i>Boundary-Layer Meteorology</i>, 180, 173–186</p> <p>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. <i>Agriculture, Ecosystems and Environment</i> 315, 107439.</p> <p>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. <i>Soil Use and Management</i>, 38(4), 1547-1563</p> <p>Bregaglio, S., Mongiano, G., Ferrara, R.M., Ginaldi, F., Lagomarsino, A., Rana, G., 2022. Which are the most favourable conditions for reducing soil CO<sub>2</sub> emissions with no-tillage? Results from a meta-analysis. <i>International soil and water conservation research</i>, 10(3), 497-506</p> <p>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.). <i>Water</i> 2022, 14, 1830.</p> <p>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. <i>Theoretical and Applied Climatology</i>, 153, 349–365</p> <p>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. <i>Italian Journal of Agrometeorology</i>, 1, 37-46</p> <p>Ferrara, R.M., Bruno, M.R., Campi, P., Camposeo, S., De Carolis, G., Gaeta, L., Martinelli, N., Mastorilli, 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. <i>Irrigation Science</i>, 42, 57–73</p> <p>Ferrara, R.M., Azzolini, A., Ciurlia, A., De Carolis, G., Mastrangelo, M., Minorenti, V., Montaghi, A.,</p>

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 H<sub>2</sub>O e CO<sub>2</sub> 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.

Data 16.09.2025