



[Italiano](#) 

Nome e Cognome: Antonio Coppola

Qualifica: Professore Ordinario

SSD: AGR/08-Idraulica Agraria e Sistemazioni Idraulico-Forestali

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Link pubblicazioni:

Scopus: <https://www.scopus.com/authid/detail.uri?authorId=56370826100>

CINECA – IRIS:

https://iris.unibas.it/simple-search?query=COPPOLA+ANTONIO&rpp=100&sort_by=bi_sort_2_sort&order=DESC

GOOGLE-SCHOLAR:

https://scholar.google.it/citations?mauthors=COPPOLA+ANTONIO&hl=it&view_op=search_authors

Curriculum Scientifico

Professore Ordinario per il settore scientifico disciplinare AGR08 – Idraulica Agraria e Sistemazioni Idraulico-Forestali presso la Facoltà di Agraria di questa Università.

È titolare del corso di Idrologia dei Bacini Agro-Forestali (10 CFU) presso la Scuola di Scienze Agrarie, Forestali, Alimentari ed Ambientali dell'Università degli Studi della Basilicata;

Attività di ricerca

L'attività di ricerca, presentata su riviste e nel corso di interventi in numerosi incontri di carattere scientifico nazionali ed internazionali, ha riguardato principalmente le seguenti tematiche (**Ambiti di ricerca ERC:** PE10_13 Soil science; PE10_18 Hydrology, water and soil pollution; PE10_15 Earth observations from space/remote sensing; PE1_16 Numerical analysis and scientific computing):

1. Caratterizzazione idrologica dei mezzi porosi naturali con metodi di campo e di laboratorio
2. Variabilità spaziale e temporale delle proprietà idrauliche ed idrodispersive dei suoli
3. Moto dell'acqua e trasporto di soluti nei mezzi porosi naturali omogenei e strutturati

4. Monitoraggio e Modelli di trasporto di acqua e di soluti nel sistema suolo-vegetazione-atmosfera
5. Approcci stocastici al trasporto dell'acqua e degli inquinanti nel suolo
6. Valutazione della vulnerabilità all'inquinamento dei suoli e delle acque sotterranee
7. Effetti sul comportamento idrologico dei suoli connessi all'impiego irriguo di acque non convenzionali.
8. Schemi idrici aziendali
9. Irrigazione in condizioni avverse;
10. Problematiche connesse alla qualità delle acque di irrigazione e all'impiego agricolo di acque reflue;
11. Problematiche connesse all'inquinamento dei suoli da parte di inquinanti organici (NAPLs).

Titoli

- Presidente della I Sezione – Idraulica Agraria – dell'Associazione Italiana di Ingegneria Agraria (AIIA);
- Associato all'Istituto per i Sistemi Agricoli e Forestali del Mediterraneo del Consiglio Nazionale delle Ricerche
- Dal 2013 al 2015 Presidente della Soil Physics Division della European Geosciences Union (EGU).
- Associate Editor della Rivista Ecohydrology-WILEY.
- Membro della Soil Science Society of America (SSSA).
- Membro del comitato scientifico del gruppo Hydrological Sciences e del gruppo Soil System Sciences della European Geosciences Union (EGU).
- Guest Editor per Journal of Contaminant Hydrology, nell'ambito dello Special Issue dal titolo: *Transport in preferential flow domains of the soil porous system: Measurement, interpretation, modelling, and upscaling.*

[English](#) 

Name and Surname: Antonio Coppola

Position: Full Professor

Agricultural and Forestry Hydraulics

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Links to publications:

Scopus: <https://www.scopus.com/authid/detail.uri?authorId=56370826100>

CINECA – IRIS:

<https://iris.unibas.it/simple->

[search?query=COPPOLA+ANTONIO&rpp=100&sort_by=bi_sort_2_sort&order=DESC](https://iris.unibas.it/simple-search?query=COPPOLA+ANTONIO&rpp=100&sort_by=bi_sort_2_sort&order=DESC)

GOOGLE-SCHOLAR:

https://scholar.google.it/citations?mauthors=COPPOLA+ANTONIO&hl=it&view_op=search_authors

Scientific Curriculum

Full Professor - Professor of Agricultural and Forestry Watershed Hydrology

Research Activities

ERC sectors: PE10_13 Soil science; PE10_18 Hydrology, water and soil pollution; PE10_15 Earth observations from space/remote sensing; PE1_16 Numerical analysis and scientific computing):

Current research focuses on measuring and modeling water and solute transport in unsaturated heterogeneous and layered porous media. Specific topics include:

- Soil Hydrological characterization;
- Spatial variability of soil hydrological properties and stochastic approaches in natural porous media;
- Conceptualization, modelling and prediction of preferential flow velocity, pathways and patterns on forest and agricultural hillslopes;
- Numerical modelling of soil water and solute transport in the Soil-Plant-Atmosphere continuum system;
- Irrigation in arid conditions and with non-conventional water resources;
- Mapping groundwater pollution risk within agricultural watershed using modelling, geostatistics and GIS;
- Groundwater resources estimates in arid zones;
- Remote sensing of soil salinity;
- Forest hillslope hydrology.

Scientific qualifications

- Associate member of the Italian National Council of Researches – Institute for the Mediterranean Agricultural and Forestry Systems for the Bilateral Project CNR-ISAFOM-COLD and ARID REGIONS INSTITUTE -CHINESE ACADEMY OF SCIENCES (CAREERI/CAS), PROJECT “IRRIGATION USING SALINE

WATER: CONTRIBUTION TO INCREASE PRODUCTIVITY AND YIELD QUALITY OF TRADITIONAL CROPS IN CHINESE N.W. OASIS”.

- 2017-2019 - Associate member of the Italian National Council of Researches – Institute for the Mediterranean Agricultural and Forestry Systems for the project “ARIMnet2 2014: Salinization in irrigated areas: risk evaluation and prevention - SALTFREE.
- 2017-2021 – Chair of the I Section (Agricultural Hydraulics) of the ITALIAN ASSOCIATION OF AGRICULTURAL ENGINEERS (AIIA)
- 2013-2015: Chair of the soil Physics Division of the EUROPEAN GEOSCIENCES UNION (EGU)
- Member of the scientific committee of the Hydrological Sciences and of the soil Systems Sciences of the EUROPEAN GEOSCIENCES UNION (EGU):
- Guest Editor for Journal of Contaminant Hydrology, for the Special Issue entitled: *Transport in preferential flow domains of the soil porous system: Measurement, interpretation, modelling, and upscaling.*

Peer reviewer for:

- Water Resources Research;
- Advances in Water Resources;
- Journal of Contaminant Hydrology;
- Journal of Hydrology;
- Geoderma;
- Vadose Zone Journal;
- Soil Science Society of America Journal;
- Soil and Tillage Research;
- Hydrology and Earth System Sciences;
- Ecohydrology;
- Irrigation Sciences;
- Journal of Agricultural Engineering;
- Water

Progetti di ricerca nazionali ed internazionali

National and International projects

- Progetti di Rilevante Interesse Nazionale (PRIN) – 2002: Heavy metals transport in soils irrigated with urban wastewater: Experiments and modeling at the mesoscale;
- PRIN 2004: Modeling agricultural pollutants dynamics at plot scale
- PRIN 2007: Fate of pesticides in soils at field scale
- PRIN 2012: Monitoring and modelling of organic and inorganic contaminants transport in the soil-bedrock system;

- Consiglio nazionale delle Ricerche (CNR): Remotely sensed surface soil water content in the project by aircraft transported active sensors;
- UNIBAS-CNR-Cold and Arid Regions Environmental and Engineering Research Institute -Chinese Academy of Sciences (CAREERI/CAS): “Irrigation using saline water: contribution to increase productivity and yield quality of traditional crops in Chinese N.W. oasis” (Minquin basin):
- Experimental quantification of groundwater recharge in the Minquin basin;
- Numerical modelling of groundwater recharge in the Minquin basin.
- 2010 - CIHEAM/IAM Bari and “Cooperazione Italiana”, Italian Government Project “Rational use of natural resources to improve agricultural productions in Syria” (1) Water balance in Northern Syria; (2) Controlling salt balance in Northern Syria (Euphrates River Region)
- 2015 – CIHEAM/IAM Bari and “Cooperazione Italiana”, Italian Government Project “Matrouh Rural Sustainable Development Project (MARSADDEV)” – Marsa Matrouh -Egypt;
- 2016 - ARIMnet2 bando internazionale 2014: Salinization in irrigated areas: risk evaluation and prevention - SALTFREE.

Permanenze all'estero presso istituzioni di Ricerca ed Universitarie

Visiting researcher at International Research Institutions and Universities

2007-2008: Guest Professor at Cold and Arid Regions Environmental and Engineering Research Institute, Chinese academy of Sciences.

2010: Guest professor at Renewable Resources Department., University of Alberta (CANADA)-Faculty of Agricultural, Life and Environmental Sciences.

2014: Guest Professor at the University of Western Australia (Civil, Environmental and Mining Engineering).

Collaborazioni attive con altre istituzioni di ricerca ed Universitarie

Collaborations with other Research Institutions and Universities

1. Dipartimento di Agraria, Università degli Studi di Napoli “Federico II”.
2. Consiglio Nazionale delle Ricerche, Istituto per i Sistemi Agricoli e Forestali del Mediterraneo, CNR- ISAFoM, Ercolano.
3. Istituto Agronomico Mediterraneo, CIHEAM-IAMB, Valenzano.
4. Department of Renewable Resources, Faculty of Agricultural, Life and Environmental Sciences, University of Alberta, Edmonton (Canada).
5. Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences, Lanzhou (China).
6. Institute of Soil Landscape Research, Leibniz-Centre for Agricultural Landscape Research, Müncheberg (Germany).
7. University of Western Australia, Department of Environmental Systems Engineering, Perth (Australia).
8. Faculty of Civil Engineering, Czech Technical University, Praha, (Czech Republic).
9. Division of Water Resources Engineering, Royal Institute of Technology (KTH), Stockholm (Sweden).

10. Department of Physical Geography and Quaternary Geology, Stockholm University, Stockholm (Sweden).

11. Dipartimento di Ingegneria, Università degli Studi di Cagliari

12. Gembloux Agro-Bio Tech, University of Liège (Belgium);