



OSSAMA ABDELWAHAB

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🗉 Web of Science: <https://www.webofscience.com/wos/author/record/122710>

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🗉 Scopus: <https://www.scopus.com/authid/detail.uri?authorId=56404481900>

MAIN RESEARCH INTERESTS

I am a researcher and the following are main topics of my research:

- Natural based Solutions (NBSs) for natural resources and environmental protection
- Sediment Transport and Tracing.
- Analysis and modelling of hydrological systems.
- Catchment hydrology and process understanding.
- Model identification and evaluation.
- Prediction in ungauged / non-stationary catchments.
- Medium-range and seasonal hydrological forecasting.
- Impacts of environmental change (land use, climate and population) on water resources.

WORK EXPERIENCE

ACADEMIC EXPERIENCE

Post-Doc Researcher

Università Degli Studi Di Bari-Aldo Moro [12/03/2014 – 30/06/2018]

City: Bari

Country: Italy

1. **Researcher "RTD-A" (27/02/2023-Now)** Agritech project Spoke 3 "Enabling technologies and sustainable strategies for the smart management of agricultural systems and their environmental impact", Nature-based solutions for natural resources and environment protection, PNRR.
2. **Researcher (01/07/2018-15/09/2022)** Researcher, Cairo University Department of Agricultural Engineering, Water Management.
3. **Researcher (01/02/2018-01/06/2018)** Research Project "Territorial analysis and hydrological modeling of the Basin of the "AIEDDA Canal", financed by "Commissario Straordinario Taranto".
4. **Researcher (01/08/2017-01/12/2017)** Research Project: "Territorial analysis and hydrological modeling of the Aiedda Canal Basin", financed with " Commissario Straordinario Taranto.
5. **Researcher (28/09/2016-28/07/2017)** Research Project: "Green Infrastructure", financed by "Third party, Basin Authority funds".
6. **Researcher (04/01/2016-04/08/2016)** Research Project: "Soil erosion in Puglia: monitoring, modeling and control strategies", funded by "Basin Authority funds".
7. **Researcher (22/09/2014-12/07/2015)** Project PRIN 2010 "National Network for the monitoring, modeling and sustainable management of erosion in agricultural lands, hills and mountains" financed by MIUR "Ministry of higher Education".
8. **Researcher (12/03/2014-12/06/2014)** Research Project: "Monitoring and continuous modeling of sediment transport in suspension at the basin scale", financed by "University of Bari" A. Moro "for PRIN 2009" projects.

Visiting Researcher

USDA-ARS, National Sedimentation Laboratory (NSL) [11/05/2014 – 11/06/2014]

City: Oxford (MS)

Country: United States

College / Assistant Professor

Cairo University [18/06/2008 – 15/09/2022]

City: Giza

Country: Egypt

NON- ACADEMIC EXPERIENCE

Agricultural Technical Engineer (Turnkey Orchard Projects)

[01/02/2019 – 31/01/2023]

Design and Cost Evaluation of Turnkey Orchard Projects (Seedlings and Plants, Irrigation, Agricultural Machinery)

Agricultural Irrigation Engineer

[15/08/2007 – 15/06/2008]

City: ISMAILIA

Country: Egypt

Management and Control of Fully Automated Fertigation system of a 200 ha Farm

EDUCATION AND TRAINING

PhD in Management and engineering of Agro-Forestry Biosystems

UNIVERSITA DEGLI STUDI DI BARI-ALDO MORO [01/01/2011 – 07/04/2014]

Address: VIA Amendola 165/A, 70126 Bari (Italy)

Field(s) of study: HYDROLOGY

Thesis: Studying the Effectiveness of Alternative Management Scenarios on the Sediment Load in a Mediterranean Agricultural Watershed Using the ANNAGNPS Model

- Agricultural Watershed management
- Soil Erosion
- Best management Practices
- Runoff Modeling
- Surface Hydrology
- Point and Non-point source pollution
- AnnAGNPS Model.

Master of Sciences (MSc) in Land and Water Resources Management-Irrigated Agriculture

Mediterranean Agronomic Institute of Bari IAMB- CIHEAM [03/11/2008 – 15/10/2010]

Address: VIA Ceglie N.9, VALENZANO, 70010 BARI (Italy)

Website: <http://www.iamb.it/>

Field(s) of study: Land and Water Resources Management

Final grade: 86,3/100 (CUM MAXIMA LAUDE)

Thesis: Assessing Soil Moisture Content and Its Distribution Under Surface and Sub-Surface Drip Irrigation Systems Using the NeutronMoisture Meter Technique"

Link: <http://sebina.iamb.it/opac/resource/assessing-soil-moisture-content-and-its-distribution-undersurface- and-subsurface-drip-irrigation-sy/CIH0020404?locale=eng>

surface and ground water hydrology, soil erosion, crop water modelling, crop response to water stress and water use efficiency, crop water requirements and irrigation scheduling, Irrigation Management at Farm level, Salinity control in relation to irrigation, Use of low quality water, Drainage systems design, Design, operation and maintenance of open channels, Pedology and soil survey investigation, Land degradation and desertification, Water and solute movements, Design, operation, maintenance, and performance evaluation of large scale pressurized irrigation systems.

BSc in Agricultural Sciences, Major : Agricultural Engineering

CAIRO UNIVERSITY [15/09/2003 – 15/10/2007]

Address: Cairo University street, Faculty of Agriculture, 12613 Giza (Egypt)

Website: <http://www.agr.cu.edu.eg/langs/>

Field(s) of study: Agricultural Engineering

Final grade: 86/100 (Excellent With Honor)

Thesis: Graduation Project : "Bio-Fuels"

- surface and ground water hydrology
- soil erosion
- crop water modelling
- crop response to water stress and water use efficiency
- Crop water requirements and irrigation scheduling,
- Irrigation Management at Farm level, Salinity control in relation to irrigation
- Use of low quality water
- Drainage systems design
- Design, operation and maintenance of open channels,

- Pedology and soil survey investigation
- Land degradation and desertification
- Water and solute movements
- Design, operation, maintenance, and performance Evaluation of large scale pressurized irrigation systems

PUBLICATIONS

INTERNATIONAL ISI JOURNALS

Suspended Sediment Transport in Mediterranean Streams: Monitoring and Load Estimation

[2023]

Water 2023, 15, 2715. <https://doi.org/10.3390/w15152715>

De Girolamo, A.M.; Ricci, G.F.; Abdelwahab, O.M.M.; Lo Porto, A.; Milillo, F.; Netti, A.M.; Gentile, F

Assessment of the effects of spatiotemporal characteristics of drought on crop yields in southwest China

[2021]

International Journal of Climatology, Vo. 42, Iss. 5 April 2022 P. 3056-3075

Ali Mokhtar, Hongming He, Karam Alsafadi, Safwan Mohammed, Olusola O. Ayantobo, Ahmed Elbeltagi, Ossama M. M. Abdelwahab, Hongfei Zhao, Ye Quan, Hazem Ghassan Abdo, Yeboah Gyasi-Agyei, Yu Li

Improving olive mechanical harvesting using appropriate natural frequency

[2020]

Journal of Agricultural Engineering, 51 LI(3), pp. 148–154, 1057

Alzoheiry, A., Ghonimy, M., Rahman, E.A.E., Abdelwahab, O., Hassan, A.

A Spatial Analysis to Define Data Requirements for Hydrological and Water Quality Models in Data-Limited Regions.

[2019]

Water 11

D'Ambrosio, E., De Girolamo, A.M., Spanò, M., Corbelli, V., Capasso, G., Morea, M., Velardo, R., Abdelwahab, O.M.M., Lonigro, A., Milillo, F., Ricci, G.F., Romano, G., Calabrese, A., Casale, B., Mauro, R., Pappagallo, G., Gentile, F.

Modeling soil erosion in a Mediterranean watershed: comparison between SWAT and AnnAGNPS models

[2018]

Environmental Research. 166, pp. 363–376

Abdelwahab, O.M.M., Ricci, G.F., De Girolamo, A.M., Gentile, F

Identifying Sediment Source Areas in a Mediterranean Watershed Using the SWAT Model

[2018]

Land Degrad & Develop., 29(4),pp. 1233-1248.

Ricci, G.F., De Girolamo, A.M., Abdelwahab, O.M.M., Gentile, F.

Modeling land use changes and their impact on sediment load in a Mediterranean watershed

[2018]

CATENA. 163,pp. 342-353, ISSN 0341-8162

Giovanni Romano, Ossama M.M. Abdelwahab, Francesco Gentile.

Evaluation of Alternative Management Practices with the AnnAGNPS Model in the Carapelle Watershed

[2016]

Journal of soil science 181 (7) - pp 293-305

Abdelwahab, O. M. M., Bingner R. L., Milillo F., Gentile F.

Modeling soil erosion and sediment load at different time scales in a medium-sized watershed

[2016]

2016 ASABE Annual International Meeting

Abdelwahab, O. M. M., Milillo F., Gentile F.

Effectiveness of alternative management scenarios on the sediment load in a Mediterranean agricultural watershed

[2014]

Journal of Agricultural Engineering, vol. 45, issue 3, pp. 125-136

Abdelwahab, O. M. M., Bingner R. L., Milillo F., Gentile F.

ISSN-ISBN Journals & Conference Proceedings

Territorial Analysis and Hydrological Modeling of the Canale d'Aiedda Basin

[2018]

In Proceedings of AgEng2018. Wageningen University & Research

Gentile F., D'Ambrosio E., Spanò M., Abdelwahab O.M.M., Lonigro A., Ricci G.F., Romano G., Calabrese A., Pappagallo G., De Girolamo A.M

Comparison between SWAT and AnnAGNPS model simulations in a Mediterranean watershed

[2017]

2017 International SWAT Conference, Warsaw, Poland, June28-30

Abdelwahab O.M.M., Ricci G.F., De Girolamo A.M., Gentile F.

Identificazione delle aree sorgenti di sedimento a scala di bacino mediante il modello SWAT

[2017]

Quaderni di Idronomia montana, 35, EdiBios.

G.F. Ricci, A.M. De Girolamo, O.M.M. Abdelwahab, F. Gentile

Modellazione del deflusso e produzione di sedimento a scala mensile con differenti management practices in un bacino Agricolo

[2016]

Quaderni di Idronomia montana, 34, EdiBios, ISBN 978-88-97181-48-4.pp 483-492.

Abdelwahab O.M.M., R.L. Bingner., Milillo F., Gentile F.

Best Management Practices for sediment control in a Mediterranean agricultural watershed

[2015]

European Geoscience Union General Assembly 2015, Vienna, Austria | 12 – 17 April 2015. Vol. 17, EGU

Abdelwahab, O. M. M., Bingner R. L., Milillo F., Gentile F.

Modellazione del deflusso e della produzione di sedimento nel bacino del Carapelle

[2014]

Quaderni di Idronomia montana, 31, EdiBios, ISBN 978-88-97181-29-3.pp 101-116.

Abdelwahab O.M.M., Bisantino T., Milillo F., Gentile F.

Runoff and sediment yield modelling in a medium-size Mediterranean watershed

[2013]

X National AIA Conference "Horizons in agricultural, forestry and biosystems engineering", JAE.

Abdelwahab O.M.M., Bisantino T., Milillo F., Gentile F.

THESIS

Studying the Effectiveness of Alternative Management Scenarios on the Sediment Load in a Mediterranean Agricultural Watershed Using the AnnAGNPS Model

[2014]

PhD Thesis, Università Degli Studi Di Bari-Aldo Moro, Italy

Abdelwahab, O. M. M.

Assessing soil moisture content and its distribution under surface and sub-surface drip irrigation systems using neutron moisture technique

[2010]

MSc thesis N 578, IAMB, Bari, Italy. Polo Biblioteche CIHEAM-Bari Inventory 8621 Shelfmark M.Sc 578

PROJECTS

"Territorial analysis and hydrological modeling of the Aiedda Canal Basin", financed with "Commissario Straordinario Taranto"

[01/08/2017 – 01/06/2018]

- Analysis of the Aiedda Canal Basin with application of the AnnAGNPS model.
- Application of the AnnAGNPS model in reference to the evaluation of liquid and solid outflows and nutrient load

"Green Infrastructure", financed by: Basin Authority funds "

[28/08/2016 – 28/07/2017]

"Identification of Best Management Practices, with particular reference to green infrastructures, for the control of basin-scale erosion through distributed modeling"

"Soil erosion in Puglia: monitoring, modeling and control strategies", funded by "Basin Authority funds", Scientific

[04/01/2016 – 04/07/2016]

"Use of the AnnGNPS model for basin-scale erosion modeling. Identification of Best Management Practices for the reduction of erosion and solid transport. Evaluation of the effectiveness of BMP through distributed modeling".

Project PRIN 2010 "National Network for the monitoring, modeling and sustainable management of erosion in agricultural lands, hills and mountains" financed by MIUR "Ministry of higher Education

[22/09/2014 – 22/07/2015]

"Use of the AnnAGNPS model for erosion and solid transport modeling at basin scale and evaluation of the effectiveness of Best Management Practices"

"Monitoring and continuous modeling of sediment transport in suspension at the basin scale", financed by "University of Bari" A. Moro "for PRIN 2009" projects

[12/03/2014 – 12/06/2014]

"Modeling of erosion and solid transport at basin scale using AGNPS model".

CONFERENCES AND SEMINARS

European Conference on Agricultural Engineering AgEng2018

[Wageningen, the Netherlands, 08/06/2018 – 12/06/2018]

Presentation of Abstract titled "Territorial Analysis and Hydrological Modeling of the Canale d'Aiedda Basin"

Francesco Gentile, Ersilia D'Ambrosio, Marinella Spanò, Ossama M.M. Abdelwahabb, Antonio Lonigro, Giovanni Francesco Riccia, Giovanni Romano, Angelantonio Calabrese, Giuseppe Pappaloc, Anna Maria De Girolamo

2017 International SWAT Conference , June 28-30

[Warsaw, Poland, 28/06/2017 – 30/06/2017]

Presentation "Comparison between SWAT and AnnAGNPS model simulations in a Mediterranean watershed"

O.M.M. Abdelwahab, G.F. Ricci, A.M. De Girolamo, F. Gentile

SWAT workshop (Advanced SWAT-CUP)

[Warsaw, Poland, 26/06/2017 – 27/06/2017]

AIIA 11th International Conference: "Biosystems Engineering addressing the human challenges of the 21st century"

[Bari – Italy, 05/07/2017 – 08/07/2017]

Presentation: "Integrated use of Landsat images, GIS and AnnAGNPS modeling to estimate the impact of land use changes on runoff and sediment load"

Romano G., Abdelwahab O.M.M., Gentile F

EU Cost Action Es1306 Connecting European Connectivity Research – CONNECTEUR Hydrological and Erosion processes in Mediterranean Landscapes: Impacts of land management on connectivity

[Palermo (Italy), 28/02/2016 – 05/03/2016]

European Geoscience Union General Assembly 2015

[Vienna, Austria, 12/04/2015 – 17/04/2015]

Presentation: "Best Management Practices for sediment control in a Mediterranean agricultural watershed"

10th conference of Italian Society of Agricultural Engineering AIIA 2013 Horizons in Agricultural, Forestry and Biosystems Engineering

[Viterbo, Italy, 08/09/2013 – 12/09/2013]

Presented paper: Runoff and sediment yield modelling in a medium-size Mediterranean watershed

O.M.M. Abdelwahab, R. Bingner, F. Milillo, F. Gentile

Conference held by Associazione Italiana di Idronomia (AIDI) 2013 "Monitoraggio, Modellazione E Gestione Sostenibile Dei Processi Erosivi Nei Territori Agricoli, Collinari E Montani"

[perugia, Italia, 30/05/2013 – 31/05/2013]

Presentation: Modellazione del deflusso e della produzione di sedimento in un bacino mediterraneo con AnnAGNPS

O.M.M. ABDELWAHAB, T. BISANTINO, F. MILILLO, F. GENTILE.

ASABE 21st Century Watershed Technology Conference "improving Water Quality and The Environment"

[Bari, Italy, 29/05/2012 – 01/06/2012]

ASABE 21st Century Watershed Technology WORKSHOP "Soil and Water Assessment Tool (SWAT)"

[Bari, Italy., 26/05/2012 – 28/05/2012]

"La protezione superficiale dei suoli come prevenzione dall'erosione e contributo alla manutenzione di frane stabilizzate"


[Politecnico Di Bari, Campus Universitario, Facoltà di Ingegneria, Bari, 17/06/2011 – 17/06/2011]

DIGITAL SKILLS

Project Assessment and Evaluation / Student orientation / Organisation of public consultations, conferences and regular meetings / E-Learning, E-Teaching, E-Content providing / Peer Reviewing / Presentation skills acquired during studies and participation in conferences / Meeting & Workshop facilitation (e.g. work group meetings, conference type meetings, etc) / Student Supervision / Organizing Conferences / Academic skills of writing and speaking

PROGRAMMING

HYDROLOGY & SOFTWARES

SWAT-CUP / Rainfall-Runoff model / Aqua Crop / Neutron probe / Soil Erosion / Soil moisture / Cropwat /  Irrigation water management / Geographical Information Systems - GIS / AnnAGNPS / SPAW (Soil-Profile-Air-Water) / SWAT Model SWAT-CUP HEC-HMS HEC-Ras HBV Mike SHE APEX and SWIM

HONOURS AND AWARDS

Honor prize for Top 10 Score during the BSC degree

Faculty of Agriculture, Cairo University, Egypt [01/10/2006]

Honor prize for Top 10 Score during the BSC degree

Faculty of Agriculture, Cairo University, Egypt [01/10/2005]

Honor prize for Top 10 Score during the BSC degree

Faculty of Agriculture, Cairo University, Egypt [01/10/2004]

Honor prize for Peer-Review Impact factor publishing

Cairo University, Egypt [25/10/2017]

Honor prize for Peer-Review Impact factor publishing

Cairo University, Egypt [11/11/2019]

COMMUNICATION AND INTERPERSONAL SKILLS

Certificate of attendance of the course "Scientific international Publishing" – Faculty and Leadership Development Center (FLDC)-Egypt

Certificate of attendance of the course "Conference Organization" – Faculty and Leadership Development Center (FLDC)-Egypt.

Certificate of attendance of the course "Effective Teaching Skills" – Faculty and Leadership Development Center (FLDC)-Egypt.

Certificate of attendance the course "Research Team Management" – Faculty and Leadership Development Center (FLDC)-Egypt.

Certificate of attendance of the course "E-Learning" – Faculty and Leadership Development Center (FLDC)-Egypt.

Certificate of attendance the course "Effective Presentation", Faculty and Leadership Development Center (FLDC)-Egypt.

International computer driving license (ICDL/ECDL).

LANGUAGE SKILLS

Other language(s):

English

LISTENING C2 READING C2 WRITING C1

SPOKEN PRODUCTION C2 SPOKEN INTERACTION C2

Italian

LISTENING C1 READING C1 WRITING C1

SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DRIVING LICENCE

Driving Licence: B

REFERENCES

Will be presented upon Request