

PERSONAL INFORMATION

Tommaso Moramarco



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WORK EXPERIENCE

Feb 2021- present	Director - Research Institute for Geo-Hydrological Protection
May 2019 – Jan 2021	Director of Research with Research Institute for Geo-Hydrological Protection (CNR IRPI)
Name and address of employer	Consiglio Nazionale delle Ricerche Piazzale Aldo Moro 7 00185 ROMA
Jan 2010 – April 2019	Senior Researcher with Research Institute for Geo-Hydrological Protection (CNR IRPI)
Name and address of employer	Consiglio Nazionale delle Ricerche Piazzale Aldo Moro 7 00185 ROMA
Nov 1995 – Dec 2009	Researcher with Research Institute for Geo-Hydrological Protection (CNR IRPI)
Name and address of employer	Consiglio Nazionale delle Ricerche Piazzale Aldo Moro 7 00185 ROMA
Oct 1994-Oct 1995	Researcher with Institute of Methodologies for Environmental Analyses
Name and address of employer	Consiglio Nazionale delle Ricerche Piazzale Aldo Moro 7 00185 ROMA
Aug 1994 – Dec 1994	Research Grant for the Project “Geographic Information Systems for data monitoring and environmental analysis”
Name and address of employer	Consiglio Nazionale delle Ricerche Piazzale Aldo Moro 7 00185 ROMA
Oct 1991 – July 1994	Contract Holder for the Project “ Hydraulic Risk Assessment”
Name and address of employer	University of Basilicata Via della Tecnica 85100 POTENZA
Feb 1989 – Sept 1989	Consultant for the Project “ Discharge monitoring in wells of Apulia Region”
Name and address of employer	GEO S.p.A. Via Carbonara 70012 BARI

EDUCATION AND TRAINING

Oct 1989 – Sept 1991	Scholarship Holder for the Project “ Assessment of Environmental Impacts of Dams
Name and address of employer	Consiglio Nazionale delle Ricerche Piazzale Aldo Moro 7 00185 ROMA
Apr 1989	Professional Engineer
Name and address of employer	Consiglio Nazionale delle Ricerche Piazzale Aldo Moro 7 00185 ROMA
Feb 1989	M.Sc. Civil Engineering with specialization in Hydraulic and Defence of the territory (110/110)
Name and address of employer	University of Bari

PERSONAL SKILLS

Since 1989, Tommaso Moramarco has been conducting research in the field of hydrological processes addressed to the flood forecasting and hydraulic risk mitigation. He has developed works in these areas producing a great number of contributions in the leading hydrologic and hydraulic journals. In particular, his works include 1)hydro-meteorological monitoring ground based and satellite observations, 2)synthesis of the effects of spatial variability in hydraulic quantities and scaling, 3) rainfall spatial distribution analysis, 4)entropy theory applied to natural channels, 5)modeling of overland flow over hillslopes, 6)modeling of surface water over watersheds, 7)flood forecasting and landslides alert, 8) hydraulic risk, 9) climate change, 10) drought, 11) safety of dams, 12) artificial neural networks and genetic algorithm. He has directed PhD theses, M.Sc. theses and has been tutor of research grants and scholarships working in the hydrology applied research areas. Since 2005, he has been playing a leading role in the hydrologic research at IRPI and he has been coordinator and scientific responsible of projects on hydro-meteorological monitoring, flood forecasting and hydraulic risk in the frame of Italian and European programs. Specifically, Dr. Moramarco was able to get funds in the last 10 years for more than 4 ML euros allowing him to establish the Hydrology Group at IRPI Perugia by having successful in securing 18 research grants, many of whom are currently permanent researcher at IRPI. The scientific activity of the Hydrology Group is well acknowledged by the National and International Scientific Community. Finally Dr. Moramarco has advised Authorities for establishing measures for flooding protection also addressed to the forward planning. He published more than 350 papers of which more than 150 on ISI journals (hind=43 Google Scholar; 38 Scopus)

FELLOWSHIPS, AWARDS AND RECOGNITION

Visiting Scientist	<ol style="list-style-type: none"> 1. Department of Civil and Environmental Engineering - Louisiana State University, Baton Rouge. USA, Short-Term mobility Program. Conducted research on Flood Forecasting in ungauged basin with Prof. Vijay P. Singh. November 2004 2. Department of Civil and Environmental Engineering, Massachusetts Institute of Technology, (MIT), Cambridge, Boston, USA , CNR-MIT Agreement. Conducted research in the context of Project “Climatic change and hydro-geologic risk with Prof. Rafael Bras. January-July 1997
Awards and Recognitions	<ol style="list-style-type: none"> 1. Elected President of Italian Hydrological Society. January 2017 - present 2. Best Associate Editor Journal of Hydrologic Engineering. American Society of Civil Engineers. 2019 3. Member of National Committee of International Union of Geodesy and Geophysics (IUGG).2016 – 2018 4. Deputy National Representative of International Association of Hydrological Sciences (IAHS/IUGG) 2019-present appointed by National Research Council 5. National Representative of International Association of Hydrological Sciences (IAHS/IUGG); 2015 - 2018; appointed by the National Research Council

6. Outstanding Reviewer Certification Journal of Hydrology. 2017
7. Reviewing Experts Group for Peer Review of the Malta Environment and Planning Authority and Sustainable Energy and Water Conservation Unit (RCA). 2015
8. Technical Consultancy Group from hydrology and atmospheric sciences for the project European Space Agency ESA-STAR pilot1000016920: "ADDITIONAL CONStellation & Scientific Analysis Studies of the Next Generation (ADDCON)"
9. 2017 EWRI ASCE Best Case Study Award for the paper "Assessment of the Drought Hazard in the Tiber River Basin in Central Italy and a Comparison of New and Commonly Used Meteorological Indicators" by Pamela Maccioni, Luca Brocca, Maggie Kossida and Tommaso Moramarco. Published on Journal of Hydrologic Engineering (ASCE). [http://dx.doi.org/10.1061/\(ASCE\)HE.1943-5584.0001094](http://dx.doi.org/10.1061/(ASCE)HE.1943-5584.0001094)
10. 2016 "Best poster award IDRA" for the paper "Potenziale dei dati satellitari per la previsione delle piene nel Fiume Benue in Nigeria", by Tarpanelli A., Amarnath G., Brocca L., Massari C., Barbetta S. and Moramarco T. Macro tema "Monitoring, open-date and free software. Italian Congress of Hydraulic and Hydraulic Constructions. 2016
11. Eligible as Director with Research Institute of Geo-Hydrological Protection, CNR, 2015
12. "Nature Research Highlights" for the paper: "Detecting rainfall from the bottom up". Nature, 509, 262–263 per l'articolo: "Brocca, L., Ciabatta, L., Massari, C., Moramarco, T., Hahn, S., Hasenauer, S., Kidd, R., Dorigo, W., Wagner, W., Levizzani, V. (2014). Soil as a natural rain gauge: estimating global rainfall from satellite soil moisture data. Journal of Geophysical Research, 119(9), 5128-5141, doi:10.1002/2014JD02148"
13. "European Geosciences Union Outstanding Student Poster (OSP) Award" for the paper: "River discharge estimation by using remote sensing data in absence of bathymetry: the Po River case study" by Tarpanelli, A., Barbetta, S., Brocca, L., Lacava, T., Faruolo, M., Moramarco, T." 2014
14. Foreign Member of the PhD Examination Committee per "International Doctor Award": 1) National Technical University of Athens (Greece) 2015. 2) Cordoba University (Spain). 2014
15. Member of Joint Committee for the Framework Agreement between National Research Council and Università Politecnica delle Marche. 2014-present
16. Member of Joint Committee for the Framework Agreement between National Research Council and Università degli Studi di Teramo. 2014-present
17. Qualification of Full Professor sector 08/A1 (Hydraulics, Hydrology, Hydraulic and Marine Constructions). 2013 - present
18. Scientific Council Board of "Consorzio Interuniversitario per l'idrologia -CINID" 2013-2018
19. Deputy National Representative of International Association of Hydrological Sciences (IAHS/IUGG) 2012-2014 appointed by National Research Council
20. Foreign Examiner for Phd Thesis, Indian Institute of Technology, Roorkee. 2012
21. Representative of Ministry of agricultural food and forestry policies for the Technical Committee of the Tiber watershed authority (June 2012 - present)
22. Diplomate Water Resources Engineer given by American Academy of Water Resources Engineers, AWREE. Palm Spring, 2011
23. Norman Medal given by American Society of Civil Engineers (ASCE) Las Vegas, 2010
24. 2010 Best poster award IDRA for the paper "Stima della velocità media in canali naturali attraverso il monitoraggio della velocità massima superficiale" by Brocca, L., Corato, G, Corradini, C., Melone, F., Moramarco, T. Italian Congress of Hydraulic and Hydraulic Constructions. 2010
25. Professional Engineer Recognition given by Engineers Register of Perugia for the contribution given in the Engineering Field Perugia, 2010
26. Employee Award given by Consiglio Nazionale delle Ricerche 2005

Mother tongue(s)
Other language(s)

Italian

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C2	C1	C1	C2
French	A1	A2	A1	A1	A2

Organization and coordination of scientific and technology workshops, conferences, exhibitions or similar events

1. Advisory Committee XIV International Conference on Hydrosience and Engineering. Cesme Turkey, September 2020
2. Advisory Committee. 40th Edition Italian Conference on Integrated River Basin Management, La Guardia. June 2019
3. Advisory Committee. XXXV National Conference in Hydraulic and Hydraulic Constructions, Ancona, 12-14 September 2018
4. Coordinator Workshop: "Criticità idrologica e idraulica nella previsione dei fenomeni alluvionali" organized for Anniversary of Flooding of Florence – 1966. Perugia 4 November 2016
5. Advisory Committee. XXXV National Conference in Hydraulic and Hydraulic Constructions, Bologna, 14-16 September 2016
6. Convener Session Hydrological Risks: Socio-economic Impact, Human Response and Adaptation to storms, landslides and floods, EGU 15th Plinius Conference on Mediterranean Risks, Taormina, 8-11 June 2016
7. Scientific Committee EGU 15th Plinius Conference on Mediterranean Risks, Taormina, 8-11 June 2016
8. Conference Coordinator, Giornate dell'Idrologia 2015. Perugia, October 6-8. 2015
9. Convener Session "What is expected from the emerging monitoring technologies for the surface hydrological processes analysis at catchment scale". XII International IAEG Congress. Turin. 2014
10. Convener Session "Nuove tecniche di misura al suolo e da satellite per la comprensione e previsione dei processi idrologici". XXXIV Italian Congress of Hydraulic and Hydraulic Constructions. Bari. 2014
11. Conference Chair. Florisa Melone International Memorial Conference, Assisi, October 10-11, 2013
12. Organizing Committee. 12th International Conference CCWI 2013: Computing and Control for the Water Industry: "Informatics for Water Systems and Smart Cities"
13. Advisory Committee. International Conference on Water, Environment, Energy and Society. Bhopal. 2016
14. Advisory Committee. International Conference HYDRO-2014. Bhopal, December 2014
15. Advisory Committee. 5th International Conference on Water Resources and Sustainable Development (CIRED 2013), Algiers, Algeria, 2013
16. Advisory Committee. 5th International Perspective on Water Resources & the Environment Conference (IPWE 2012), January 4-7, 2012, Marrakech, Morocco
17. Advisory Committee. EGU Leonardo Topical Conference Series on the hydrological cycle, "Looking at catchments in colours – Debating new ways of generating and filtering information in hydrology", Luxembourg, 10-12 November 2010
18. Advisory Committee. XXXI^o National Conference in Hydraulic and Hydraulic Constructions, Perugia, 8-13 settembre 2008
19. Session Chair: "Management of Land, water and sediments". Conference "Knowledge, assessment and plans for the future of the Trasimeno Lake" Regional Authority for the Environmental Protection 2011
20. Session Chair: Use of complementary sources of information to reduce model uncertainty. EGU Leonardo Conference: Looking at Catchments in Colors 2011
21. Session Chair: "Irrigation Management". International Conference on Water and Environment, New Delhi, January 12-16, 2009
22. Session Chair: "Flood propagation and Flooding" XXXI^o National Conference in Hydraulic and Hydraulic Constructions, Perugia, 8-13 September 2008
23. Session Chair: "Watershed Hydrology" International Conference on Water and Environment, Bhopal, December 15-18, 2003

Lectures and Invited Speaker

1. Lecture (12h). Training Program on “River Discharge Estimation using Non-Contact Hydrometric Techniques”. Indian Institute of Technology. Roorkee, February 17-21 2020
2. Lecture (5h). Training Program under DRIP on “Conventional and Advanced Hydrometric Techniques for Discharge Estimation”. Indian Institute of Technology. Roorkee, June 10-12 2019
3. Lecture (2h). Training Program under DRIP on “Hydrological and Hydraulic Methods of Flood Routing” . Indian Institute of Technology.. Roorkee, June 13-14 2019
4. Lecture (10h). Training-cum-workshop on River Discharge Estimation Using Non-Contact Hydrometric Techniques. Indian Institute of Technology.. Roorkee, June 3-7 2019
5. Lecture (2h). Winter School. Warredoc Foreigner University. Perugia. Streamflow measurements by ground and satellite observations. February 2019
6. Lecture (4h) International Training Course on Climate Services for Disaster Prevention, Florence, November 30. 2017
7. Lecture (10h) Course on Emerging Hydrometric Techniques for Discharge Estimation and Rating Curve Development. Ministry of Human Resource Development of India in cooperation with Indian Institute of Technology and Global Initiative of Academic Network (GIAN). Roorkee, April 2-8 2017
8. Lecture (3h). Short course on innovative streamflow measurements. PhDays in Water Engineering. University of Bologna. 2014
9. Lecture (1h). Streamflow measurements for high flows: Ground and Satellite Observations. Andhra Pradesh State Disaster Mitigation Society (APSDMS). India. 2013
10. Lecture (4h) Summer School, Surface Hydrological Processes, Department of Environmental Engineering, University of Basilicata. Italy. 6/2011
11. Lecture (2h). Monitoring and Hydrological Safety of Dams. Department of Environmental Engineering, University of Basilicata. Italy. 3/2011
12. Lecture (2h). Hydrometric Monitoring: new perspectives. Department of Civil Engineering, University of Palermo . Italy. 4/2010
13. Lecture (1h). Hydrological Processes in the Upper Tiber Basin. Unesco. 2009
14. Lecture (4 h). Monitoring of hydrological processes based on ground and satellite observations. Department of Civil Engineering, University of Perugia 5/2008
15. Lecture (4h). Streamflow measurements and discharge assessment at ungauged river site”. Certificate on Disaster Management for SriLanka Officials. University for Foreigners Perugia. 2007
16. Lecture (4h). Real Time Hydro-meteorological Monitorig and Flood Forecasting”. Master in Disaster Managment per studenti dello Sri Lanka. Università Politecnica delle Marche. 2007
17. Lecture (12h). Short Course on hydrology and hydraulics. Department of Civil Engineering, University of Perugia. 2004-2005
18. Lecture (4h). Computation of discharge under unsteady effects” International Course for Water Resources Management in Africa Subsahariana –IWRM, University for Foreigners Perugia. 2003
19. Invited. Ground and Satellite Observations to predict Flooding Phenomena. Roorkee Water Conclave, Roorkee, Feb 26-28, 2020
20. Invited. Streamflow monitoring using ground and satellite observations. International Conference “Sustainable Technologies for Intelligent Water Management”. Roorkee, Feb 2018
21. Invited. New perspectives for river discharge monitoring by leveraging ground and satellite observations. European Space Agency. Frascati. Nov 2016
22. Invited. “Exteme events and climate changes” “AQUA 2015, World Water Day. Perugia 22 marzo 2015
23. Invited. New remote sensing techniques for hydraulic monitoring. "Il International Workshop on methods and technologies for environmental monitoring and modelling: Hydrological and Hydraulic Risk". Matera 2013

International Committees

24. Invited. Rainfall scenarios and flooding risk analysis in a context of climate changes. North Atlantic Treaty Organization (NATO) Advanced Research Workshop (ARW) entitled "Climate Change and its Effect on water resources - Issues of National and Global Security." Izmir, Turkey, September 1-4, 2010
25. Invited. Flood forecasting matters in the Upper Tiber Basin. Workshop Umbria@Ambiente. 2006

Editorial Board

1. Environmental & Water Resources Institute (EWRI) dell'American Society of Civil Engineers (ASCE) 2009-present
2. International Environmental Modelling & Software Society iEMMs 2008-present
3. Agricultural Minister Representative of Technical Committee of Tiber Watershed Authority 2012-present
4. "Società Idrologica Italiana" (SII) (Charter Member 2009-present)
5. European Geophysical Union (EGU) 2008-present
6. "Associazione Idrotecnica Italiana" 2009-present
7. "Gruppo Italiano di Idraulica" 2010 - present

1. Guest Editor – Water – Special Issue - Advances in Hydro-Meteorological Monitoring, 2016
2. Practitioner Advisory Board. Chow's Handbook of Applied Hydrology, Mc GRAW HILL Publications, 2016, ISBN-13: 978-007183509110
3. Editor "Advances in Watershed Hydrology", Book Chapters, International Florisa Melone Memorial Conference, 2015, Water Resources Publications, LLC, Colorado 80163-0026, USA
4. Guest Editor - Hydrology and Earth System Sciences – Special Issue - Looking at catchments in colors: new ways of generating, combining and filtering information in hydrology, 2010-2011
5. Associate Editor: a) Journal of Hydrologic Engineering, American Society of Civil Engineers (ASCE), 2009- present; b) Asian Journal of Geosciences, Hindawi Publishing Corporation. 2013- present

Scientific Projects

Coordinator and Unit
Responsibility

1. Coordinator. National Project by Minister of University and Research. IntEractions between hydrodyNamics flows and bioTic communities in fluvial Ecosystems: advancement in dischaRge monitoring and understanding of Processes Relevant for ecosystem sustalnability by the development of novel technologieS with field observatioNs and laboratory testinG (ENTERPRISING). Sep 2019-2021. (743.660,00 €)
2. Coordinator. Strategic Project “Natural Risks, Anthropogenic Impacts and Environmental Technologies ”. Department of Earth System Science and Environmental Technologies, National Research Council, 2013-present
3. Coordinator. Project “Natural and anthropogenic risks”. Department of Earth System Science and Environmental Technologies, National Research Council, 2013-present
4. Unit Responsibility. Life+2011 ENV/GR/ "FLoods and flre Risk assessment and management (FLIRE) " Oct 2012-present (106.000,00 €).
5. Unit Responsibility Project SWARM SmartCities funded by MIUR. 2014. (120.900€).
6. Unit Responsibility Cooperation CNR-IRPI -United States Geological Survey (USGS) for ROSES 2015 SWOT: “NASA’s MEaSURES Projects - development of Pre-SWOT Earth System Data Records for Global Surface Water Storage Dynamics. 2016- present
7. Coordinator and Unit Responsibility EU DG ENV Project “Assessment of water Balances and Optimisation based Target setting across EU River Basins (ABOT) funded by European Union 2011-2013 (400.000,00 €).
8. Coordinator and Unit Responsibility. WP2.6 of Project of Interest, CNR, NextData, (55.000,00 €)
9. Coordinator and Unit Responsibility. IRPI Project “Soil moisture assessment” funded by CNR,2005-2009.
10. Coordinator and Unit Responsibility POR-FESR Project “Drought and Climate Changes” funded by Umbria Region Authority (470.000,00 €) 2009-present.
11. Coordinator Project “ Seepage line investigation by geophysical technique at Calcione Dam” funded by “Ente Irriguo Umbro Toscano (EIUT)” (24.000,00 €) 2014.
12. Coordinator Project “Analysis and modelling of hydro-meteorological data for the period 2009-2013” funded by Umbria Region Authority (136000 €). 2014.
13. Coordinator Project “Flooding map along Genna stream and Tiber River” funded by Provincia and Comune di Perugia. (32.000€) 2013-2014
14. Coordinator Project “Lidar surveys for the Montedoglio dam basin” funded by “Ente Irriguo Umbro Toscano (EIUT)”. 2012. (50.400,00 €)
15. Coordinator Project “Analysis and modelling of hydro-meteorological data for the period 2006-2008” funded by Umbria Region Authority (180.900,00 €). 2014.
16. Coordinator Project “Flooding map along Paglia River” funded by Consorzio per la bonifica della Val di Chiana Romana e Val di Paglia. 2010 (32000,00 €).
17. Coordinator POR-FESR Project “Flooding map in the secondary channels network of Tiber basin” funded by Umbria Region Authority. 2009 (240.000,00 €).
18. Coordinator POR-FESR Project “Flooding Operative Scenarios” funded by Umbria Region Authority. 2009 (80.000,00 €).
19. Coordinator Project “Generation of a model-supported rainfall runoff database to support flood risk management”; Agreement IRPI- Department of Computational Landscape Ecology, Helmholtz Centre for Environmental Research – UFZ. (12.000 €). 2009.
20. Coordinator Project “Testing of the bottom outlet of the Casanuova Dam along the Chiascio River” funded by “Ente Irriguo Umbro Toscano (EIUT)” (90.000,00 €) 2009-2010.
21. Unit Responsibility PRIN “ Streamflow measurements or high flows” funded by MIUR. 2008. (15.800,00 €).
22. Coordinator. Project “Analysis and forecast of flooding events along the Tiber River” funded by Autorità di Bacino del Fiume Tevere (ABT) (72.000,00 €) 2007-2008.

23. Unit Responsibility. Interreg IIB CADSES EU Project "FLOODMED: Monitoring, forecasting and best practices for FLOOD Mitigation and prevEntion in the CADSES region" as IRPI partner (170.000,00 €) 2006-2007-
24. Coordinator. Project "Analysis and modelling of hydro-meteorological data for flood forecasting along the Tiber River" funded by Umbria Region Authority (399.772,00 €) 2006-2010.
25. Unit Responsibility Interreg IIC Project "Espacio Riviere Europe" as IRPI partner (10.000,00 €) 2005
26. Coordinator. Project "Flooding prone area assessment in the natural channel network of Tiber River" funded by Umbria Region Authority (350.000,00 €) 2001-2008
27. Coordinator Project "Hydrological Safety of Dams located in the Upper Tiber Basin" funded by EIUT (244.000,00 €) 2006-2007

ISI Journal Papers (2020-2017)

Google scholar: hindex=43;

Scopus: hindex=38;

1. Kastali A., Zeroual A., Remaoun M., Serrano-Notivoli R. , Moramarco T., (2020). Design flood and flood-prone areas under rating curve uncertainty. Case study: area of Vieux-Ténès, Algeria. *Journal of Hydrologic Engineering*. [https://doi.org/10.1061/\(ASCE\)HE.1943-5584.0002049](https://doi.org/10.1061/(ASCE)HE.1943-5584.0002049)
2. Fulton J. W. , Anderson I. E. , Chiu C.-L. , Sommer W., Adams J.D., Moramarco T., David M. Bjerklie D.M., Fulford J.M., Sloan J.L., Best H. R., Conaway J.S., Kang M. J. , Kohn M. S., Nicotra M. J. and Pull J.J. (2020). QCam: sUAS-based Doppler Radar for Measuring River Discharge. *Remote Sens.* 2020, 12(20), 3317; <https://doi.org/10.3390/rs12203317>
3. Abdolvandi A.F., Ziaei A.L. Singh V.P. and Moramarco T.(2020). New Approach to Computing Mean Velocity and Discharge. *Hydrological Sciences Journal*, <https://doi.org/10.1080/02626667.2020.1859115>
4. Fulton J.W., Mason C., Eggleston J., Nicotra M., Chiu C.L., Henneberg M. , Best H., Cederberg J., Holnbeck S., Lotspeich R., Laveau C., Moramarco T., Jones M., Gourley J., Wasielewski D. (2020). Near-Field Remote Sensing of Surface Velocity and River Discharge Using Radars and the Probability Concept at 10 USGS Streamgages. *Remote Sensing.* 2020, 12(8), 1296; <https://doi.org/10.3390/rs12081296>
5. Sinagra, M.; Nasello, C.; Tucciarelli, T.; Barbetta, S.; Massari, C.; Moramarco, T. (2020). A Self-Contained and Automated Method for Flood Hazard Maps Prediction in Urban Areas. *Water*, 12, 1266.
6. Bjerklie D. M., Fulton J. W., Dingman S. L., Canova M. G., Minear Justin T. & Moramarco T., (2020). Fundamental Hydraulics of Cross-sections in Natural Rivers: Preliminary Analysis of a Large Data Set of Acoustic Doppler Flow Measurements. *Water Resources Research*, <https://doi.org/10.1029/2019WR025986>
7. Termini D., Moramarco T. (2020). Entropic model applications to identify cross-sectional flow effect on velocity distribution in a large amplitude meandering channel. *Advances in Water Resources*. Volume 143, September 2020, 1036
8. Morbidelli, R., Garcia Marin, A.P., ..., Moramarco, T., ..., (2020). History of the rainfall data time resolution in different geographical areas of the World. *Journal of Hydrology*, 590, 125258, doi:10.1016/j.jhydrol.2020.125258. <https://doi.org/10.1016/j.jhydrol.2020.125258>.
9. Manfreda S., Pizarro A., Moramarco T., Cimorelli L., Pianese D., Barbetta S. (2020) 'Is it really advantageous the adoption of the flow-area rating curve?', *Journal of Hydrology*, <https://doi.org/10.1016/j.jhydrol.2020.124752>.
10. Alimenti F., Bonafoni S., Gallo E., Palazzi V., Vincenti Gatti R., Mezzanotte P., Roselli L., Zito D., Barbetta S., Corradini C., Termini D. and Moramarco T. (2020). Non-Contact Measurement of River Surface Velocity and Discharge Estimation with a Low-Cost Doppler Radar Sensor. *IEEE Transactions on Geoscience and Remote Sensing*. 10.1109/TGRS.2020.2974185

11. Achour, K., Meddi, M., Zeroual, A. Senna Bouabdelli, Pamela Maccioni & Tommaso Moramarco. (2020). Spatio-temporal analysis and forecasting of drought in the plains of northwestern Algeria using the standardized precipitation index. *J Earth Syst Sci* 129, 42 doi:10.1007/s12040-019-1306-3
12. Palladino, M.R., Barbetta, S., Camici, S., Claps, P., Moramarco, T. (2019) Impact of animal burrows on earthen levee body vulnerability to seepage. *Journal of Flood Risk Management*, <https://doi.org/10.1111/jfr3.12559>
13. Tarpanelli, A., Camici, S., Nielsen, K., Brocca, L., Moramarco, T., Benveniste, J. (2019). Potentials and limitations of Sentinel-3 for river discharge assessment. (2019) *Advances in Space Research*, DOI: 10.1016/j.asr.2019.08.005
14. Morbidelli, R., Saltalippi, C., Flammini, A., Cifrodelli, M., Dari, J., Corradini, C., García-Marín, A.P., Moramarco, T. (2019). On the applicability of temporal stability analysis to raingauge network design. *Hydrological Sciences Journal*, DOI: 10.1080/02626667.2019.1645959
15. Barbetta, S., Coccia, G., Moramarco, T., Todini, E. (2018). Real-time flood forecasting downstream river confluences using a Bayesian approach *Journal of Hydrology*, 565, pp. 516-523.
16. Tayfur, G., Singh, V.P., Moramarco, T., Barbetta, S. (2018). Flood hydrograph prediction using machine learning methods *Water*, 10 (8).
17. Termini, D., Moramarco, T. (2018).. Dip phenomenon in high-curved turbulent flows and application of entropy theory. *Water*, 10 (3).
18. Tauro, F., Selker, J., Van De Giesen, N., Abrate, T., Uijlenhoet, R., Porfiri, M., Manfreda, S., Caylor, K., Moramarco, T., Benveniste, J., Ciruolo, G., Estes, L., Domeneghetti, A., Perks, M.T., Corbari, C., Rabiei, E., Ravazzani, G., Bogena, H., Harfouche, A., Broccai, L., Maltese, A., Wickert, A., Tarpanelli, A., Good, S., Lopez Alcala, J.M., Petroselli, A., Cudennec, C., Blume, T., Hut, R., Grimaldia, S. 2018. Measurements and observations in the XXI century (MOXXI): Innovation and multi-disciplinarity to sense the hydrological cycle. *Hydrological Sciences Journal*, 63 (2), pp. 169-196.
19. Barbetta S., Moramarco T., Perumal M. (2017). A Muskingum-based methodology for river discharge estimation and rating curve development under significant lateral inflow conditions. *Journal of Hydrology*, doi.org/10.1016/j.jhydrol.2017.09.022
20. Moramarco T. Dingman S.L. (2017). On the theoretical velocity distribution and flow resistance in natural channels, *Journal of Hydrology*, doi.org/10.1016/j.jhydrol.2017.10.068
21. Camici S., Brocca L., Moramarco T., (2017) Accuracy versus variability of climate projections for flood assessment in central Italy. *Climatic Change*, 2017, DOI 10.1007/s10584-016-18
22. Moramarco T., Barbetta S., Tarpanelli, A., (2017). From surface flow velocity measurements to discharge 2 assessment by the entropy theory. *Water*, 9(2), 120; doi:10.3390/w9020120
23. Spada, E., Sinagra, M., Tucciarelli, T., Barbetta, S., Moramarco, T., Corato, G. (2017). Assessment of river flow with significant lateral inflow through reverse routing modeling. *Hydrological Processes*, in press
24. Barbetta, S., Camici, S., Bertuccioli, P., Palladino, M. R., Moramarco, T. (2017). Refinement of seepage vulnerability assessment for different flood magnitude in National levee database of Italy. *Hydrology Research*, DOI: 10.2166/nh.2017.101
25. Barbetta S., Coccia G., Moramarco T., Brocca L., Todini E. (2017) The multi temporal/multi-model approach to predictive uncertainty assessment in real-time flood forecasting, *Journal of Hydrology*, 551,555-576
26. Termini D. Moramarco T. (2017). Application of entropic approach to estimate the mean flow velocity and manning roughness coefficient in a high-curvature flume. *Hydrology Research*, *Hydrology Research* 48 (3): 634–645.

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