

PROF. GIORGIO BERTANZA

EDUCATION AND ACADEMIC CAREER

1990 – Degree in Mechanical Engineering– Brescia University
1996 - Ph.D. in Sanitary-Environmental Engineering, technical University of Milan.
1996-1997 - Post-doctoral fellow at Brescia Univ. and at Institut für Thermische Verfahrenstechnik, Clausthal Univ. (D)
1998 – Assistant Professor in Sanitary Engineering at Brescia Univ.
2001 - Associate Professor in Sanitary and Environmental Engineering at Brescia Univ.
2005 - Full Professor in Sanitary and Environmental Engineering at Brescia Univ.
2016 -2020 - President of the Didactic Council of the Bachelor and Master courses in Civil and Environmental Engineering
2020 – Head of the Department of Department of Civil, Environmental, Architectural Engineering and Mathematics

2. BIBLIOMETRIC INDEXES RELATED TO PUBLICATIONS AND CITATIONS

Author of 380+ scientific publications (<https://iris.unibs.it/mydspace>) both national and international (101 on Scopus).
Author of 10 national and international books on wastewater treatment.
Total number of citations 3100+, h-index 31 (GoogleScholar - March 2022).
GoogleScholar Bibliometric profile: <https://scholar.google.com/citations?hl=it&user=BI1wYO4AAAAJ>

3. PRIZES AND AWARDS

2022 - Paper under review "Treatment of micropollutants in wastewater: balancing effectiveness, costs and implications", was recently listed on SSRN's Top Ten download list for: SRPN: Water Pollution (Water) (Topic) and Water Sustainability eJournal.
2021 - paper identified to be shortlisted for the Junior Moulton Medal by the Institution of Chemical Engineers (IChemE): M.C. Collivignarelli, C. Collivignarelli, M. Carnevale Miino, A. Abbà, R. Pedrazzani, G. Bertanza (2020): "SARS-CoV-2 in sewer systems and connected facilities" - Process Safety and Environmental Protection, 143, 196-203
2020 – Most downloaded paper: M.C. Collivignarelli et al. (2020): "SARS-CoV-2 in sewer systems and connected facilities" - Process Safety and Environmental Protection, 143, 196-203
2020 – Invitation to take part in the pool of EU Experts for the revision of the Wastewater Directive 271/91/EEC
2019 – Award from Milanodepur for results of research activities at the Milano Nosedo WWTP
2019 – Key note lecturer at the ICCE 2019, 17th International Conference on Chemistry and the Environment, 16-20 June, Thessaloniki, Greece
2018 – Key note lecturer at the 4rd International Conference on Recycling and Reuse October 24-26, 2018 - Istanbul
2017 – Citation of the paper in the MBR site: G. Bertanza et al. (2017): "A comparison between two full-scale MBR and CAS municipal wastewater treatment plants: techno-economic-environmental assessment" Environmental Science and Pollution Research, 24(21), 17383-17393
2017 – Citation on Science for Environment Policy, a news service published by the European Commission's Environment Directorate-General, of the paper: M. Papa et al. (2017): "How far are we from closing the loop of sewage resource recovery? A real picture of municipal wastewater treatment plants in Italy". Journal of Environmental Management, 198, 9-15
2016 – Acceptance of European patent - number 1598712
2015 – Two publications ranked as excellent in the VQR 2011-2014 Ministerial Assessment

2015 – Acceptance of International patent - number: WO 2011/089501

2013 – Citation of the paper in the National Institute of Health area on Endocrine Disruptors: G. Bertanza et al. (2013). EDCs, estrogenicity and genotoxicity reduction in a mixed (domestic + textile) secondary effluent by means of ozonation: a full-scale experience. *Science of the Total Environment*, 458-460, 160-168

2012 – Best platform presentation in the session “Emerging contaminants” of the paper: Papa M. et al. (2012). “The role of bioassays in the assessment of ozonation suitability for the removal of EDCs from wastewater”. *Proceedings of ECOSTP, IWA International Conference “Ecotechnologies for Wastewater Treatment. Technical, Environmental and Economic Challenges. 25-27 June 2012, Santiago de Compostela, Spain. ISBN 978-84-695-3605-6*

2011 - Citation of the paper in the National Institute of Health area on Endocrine Disruptors: G. Bertanza et al. (2011): “Effect of biological and chemical oxidation on the removal of estrogenic compounds (NP and BPA) from wastewater: An integrated assessment procedure” – *Water Research*, 45, 2473 – 2484

2010 - Citation of the paper in the National Institute of Health area on Endocrine Disruptors: G. Bertanza et al. (2010): “Removal of endocrine disrupting compounds from wastewater treatment plant effluents by means of advanced oxidation” – *Water Science and Technology*, 61.7, 1663-1671

2001 – Award “L. Bozzini” as the best Italian presentation at International Waste Management and Landfill Symposium 2001: G. Bertanza, S. Cavallari, C. Collivignarelli, P. Avanzi (2001): “Characterization of waste extracted from MSW landfills: correlation between waste stabilization and characteristics of landfill emissions” – *Proceedings of “Sardinia 2001”, Eight International Waste Management and Landfill Symposium, ed. by T.H. Christensen, R. Cossu, R. Stegman; S. Margherita di Pula (CA), 1-5 October, I, 179-188.*

4. OTHER RECOGNITIONS: ORGANIZATION OF SEMINARS, CONFERENCES AND EDITORS

2008 on - Associate Editor of the International Journal “Water Science and Technology” (IWA Publishing); from August 2020 Editor and member of the Editorial board

2020 on – member of the Editorial board (section “Energy and Environment”) of the International Journal *Energies* (MDPI)

2015 – Guest Editor of the special Issue 4 (2015), vol. 71 of *Water Science and Technology*. “Full Scale Investigations of the Applications of New Developments in Wastewater and Water Supply Technologies”

2020 - Co-Guest Editor of the special issue “Water Reuse and Environmental Sustainability” of the *Journal Sustainability* (ISSN 2071-1050)

2020 - Guest Editor of the Special Issue "Wastewater Treatment and Environmental Footprint Assessment" of the *Journal Sustainability* (ISSN 2071-1050)

2008 on - Secretary, of the Specialist Group “Advanced Oxidation Processes” of IWA (International Water Association)

2003 on – member of International Programme, Technical or Scientific Committee of international conferences:

- “Third IWA International Conference on Oxidation Technologies for Water and Wastewater Treatment”, Goslar (D), 18 - 22 May 2003

- “Fourth IWA Specialist Conference on Oxidation Technologies for Water and Wastewater Treatment”, Goslar (D), 15 - 17 May 2006

- “IWA World Water Congress & Exhibition”, Beijing, 10-14 September 2006

- “IWA World Water Congress & Exhibition”, Vienna, 7-12 September 2008

- “Fifth IWA Specialist Conference on Oxidation Technologies for Water and Wastewater Treatment”, Berlin (D), 30 March- 1 April 2009

- International Workshop “Application of redox technologies in the environment”, ARTE09 (Istanbul, 2009)

- “4th International Conference on Recycling and Reuse (R&R 2018)” 24-26 October 2018, Istanbul

- WPMC 2019 2nd International Conference on Water Problems in the Mediterranean Countries. Near East University Nicosia. Cyprus, 6-10 May 2019. (<http://wpmc2019.con.neu.edu.tr/committees/>)

- ESS 2019 2nd International Conference on the Environment Survival and Sustainability. Near East University Nicosia. Cyprus, 7-11 October 2019. (<http://ess2019.con.neu.edu.tr/>)
- 17th International Conference on Chemistry and the Environment, 16-20 June 2019, Thessaloniki, Greece
- ECOMONDO, from 2019 on
- 5th IWA International Conference on Ecotechnologies for wastewater treatment, Milan, Italy, June 21-25, 2021
- 3rd WEN (WaterEnergyNEXUS conference), 2-4 December 2020 (online)
- SIDISA 2020, XI International Symposium on environmental engineering, Turin (Italy), postponed to June 29th – July 2nd 2021
- IWA “Water in Industry 2021”, 23 – 25 August 2021, online conference, Nanjing, China
- 2014- Invited as speaker at the Department of Chemical and Biological Engineering at Chalmers University of Technology, Göteborg, Sweden. 4 September 2014. Topic “Mass and energy balances and technical-economic evaluation of wastewater treatment and sludge management”.
- 2016 - Invited at the Chalmers University of Technology (Göteborg, Svezia) 24-26 February 2016, within a frame of scientific cooperation.

5. LIST OF PROJECTS WITH PARTICIPATION AS PI OR MEMBER

- Responsible for Brescia University Research Unit. “CRAFT” program. “Innovative Wastewater Treatment Applications for Isolated Locations”, Closed in 2006.
- Responsible for Brescia University Research Unit. (2007-2008). Bilateral funding program Italy-Germany “Programma Vigoni”. “Micropollutants in Water: Presence, Removal and Modelling”
- Responsible for Brescia University Research Unit. PRIN 2009 (closed in 2013). “Rimozione di microinquinanti dalle acque di scarico mediante trattamenti convenzionali e avanzati”.
- Responsible for Brescia University Research Unit. UE project, 7th frameshift program, “ROUTES: Novel Processing Routes for Effective Sewage Sludge Management”, (2011-2013).
- COST Action “Water_2020 Conceiving wastewater treatment in 2020: Energetic, environmental and economic challenges”, 2013-2016, Action ES1202 (<http://www.water2020.eu/>).
- Responsible for his Department in the project “Brescia Smart Living: Energie e servizi integrati per la valorizzazione del benessere”, financed by MIUR, 2015 -2018.
- Responsible for Brescia University Research Unit in the project “SWARM-net (Smart Water Resource Management – Networks)”, financed by MIUR, started in 2016, still ongoing.
- PI of the project “WAT_CHALLENGE: The water challenge: smart models, tools and methods for assessing environmental suitability and effects of green technologies on human health”, financed by University of Brescia within the call Health & Wealth 2015. 2016 - 2019.
- PI of the project “SMART_WAT: Smart drinking- and waste-water treatment strategies for the protection and exploitation of natural water reservoirs”, financed by University of Brescia within the call B+LabNet. 2017 - 2019.
- Member in the project “CREIAMO - Circular economy in olive oil and wine sectors. Valorization of by-products and residues through innovative processes and new business models”, financed by Fondazione Cariplo (2019 –2021).
- Member of the project “BIOMetAno per una Società Sostenibile: sviluppo di un Laboratorio Italiano di Circular Economy dal bio-metano –BIOMASS HUB” financed by Regione Lombardia (Programma Operativo Regionale 2014-2020; Azione I.1.b.1.3 - Sostegno alle attività collaborative di R&S per lo sviluppo di nuove tecnologie sostenibili, di nuovi prodotti e servizi, CALL HUB RICERCA E INNOVAZIONE). Started in 2019.
- PI of the project “Sludge (and other residues) recovery in agriculture: environment and health protection (SLURP)” financed by Fondazione Cariplo, within the call “Economia Circolare – 2020” (2021-2024).