

**PERSONAL INFORMATION**

**Carlo Vincenzo Camporeale**

*Date of birth* 02/03/1976 | *Nationality* Italian

Enterprise	University	EPR
<input type="checkbox"/> Management Level	<input checked="" type="checkbox"/> Full professor	<input type="checkbox"/> Research Director and 1st level Technologist / First Researcher and 2nd level Technologist
<input type="checkbox"/> Mid-Management Level	<input type="checkbox"/> Associate Professor	<input type="checkbox"/> Level III Researcher and Technologist
<input type="checkbox"/> Employee / worker level	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

**WORK EXPERIENCE**

- 2022 - present     **Full Professor**  
 Politecnico di Torino (Italy) - Dipartimento di Ingegneria dell’ambiente del territorio e delle infrastrutture (DIATI)  
 ▪ Teaching  
 ▪ Ph.D. students adviser and co-adviser  
Academia
- 2014 - 2021     **Associate Professor**  
 Politecnico di Torino (Italy) - Dipartimento di Ingegneria dell’ambiente del territorio e delle infrastrutture (DIATI)  
 ▪ Teaching  
 ▪ Ph.D. students adviser and co-adviser  
Academia
- 2007 - 2021     **Assistant Professor**  
 Politecnico di Torino (Italy) - Dipartimento di Ingegneria dell’ambiente del territorio e delle infrastrutture (DIATI)  
 ▪ Teaching  
 ▪ Ph.D. students adviser and co-adviser  
Academia
- 2005 - 2007     **Post-doc**  
 Politecnico di Torino (Italy) - Dipartimento di Ingegneria dell’ambiente del territorio e delle infrastrutture (DIATI)  
 ▪ Teaching  
 ▪ Ph.D. students adviser and co-adviser  
Academia
- 2009-2018     **Visiting Professor**  
 2018: Department of Civil and Environmental Engineering, Princeton University (USA)  
 2013: Laboratoire d'Idrodynamique, Ecole Polytechnique (Paris)  
 2009: University of Washington, Department of Applied Mathematics (USA)

**EDUCATION AND TRAINING**

- 2002 - 2004     **Ph.D.** *Level 8*  
 Politecnico di Torino  
 ▪ Hydraulic Engineering

2014 - 2019	<b>Master Degree</b> Università degli Studi di Torino ▪ Physics of Complex Systems	Level 7
1995 - 2001	<b>Master Degree</b> Politecnico di Torino ▪ Environmental Engineering	Level 7
1989 - 1994	<b>Secondary school degree</b> Liceo Scientifico C. Darwin, Rivoli (TO)	Level 4

**PERSONAL SKILLS**

Mother tongue(s) Italian

Other language(s)

	Understanding		Speaking		Writing
	Listening	Reading	Interaction	Production	
English	C2	C1	C1	B2	C1
French	A2	B1	A2	A2	A1

Digital skills good command of office suite (word processor, spread sheet, presentation software)  
good command of softwares (Matlab, QGIS, Mathematica-Wolfram, Hec-Ras, Delft3D)

**ADDITIONAL INFORMATION**

Bio-sketch Carlo Camporeale is a water scientist with expertise in fluid mechanics, morphodynamics, stochastic processes, pattern formation in geophysics and biological fluid mechanics. He holds a M.S. in *Environmental Engineering*, a M.S. in *Physics of Complex Systems* and a Ph.D. in *Hydraulic Engineering* and he is currently Full Professor of Fluid Mechanics and Hydraulics in the Department of Environment Land and Infrastructure Engineering of Politecnico di Torino (Italy). In 2008, he received the Torricelli Prize for the best young Italian scientist in Water Engineering and Hydraulics for the period 2008-2010. The prize was awarded by the Italian Water Engineers Association (GII), under the recommendations of an international selection committee. He is inventor of a patent, shared with Ridolfi L., Guala A., Milan A. and Veglio T, and titled: "Metodo e apparato per stimare grandezze cardiocircolatorie" (n. 102017000020637, release date: 17/06/2019). The patent is the result of the collaboration between Polytechnic of Turin and the Faculty of Medicine of Turin and it *has involved an intense collaboration with physicians of the Center of Hyperthension of Molinette Hospital of Torino*. Polytechnic of Turin owns 85% of the patent's rights.

Scientific research Carlo Camporeale has a long-standing experience in river morphodynamics, sediment transport, fluid mechanics, riparian vegetation dynamics and remote sensing of fluvial systems. The scientific approach combines theoretical and numerical analyses with field measurements. He has supervised or co-advised 18 Ph.d students, 9 post-doctoral fellowships and 12 pre-doctoral fellowships.

- Total publications (SCOPUS): 88
- Sum of the Times Cited (SCOPUS): 2495
- h-index (SCOPUS): 24

**Editorship of journals**

- 2022- present: Associate editor of *Advanced in Water Resources*.
- 2021-present: Associate editor of *Frontiers in Environmental Science* (Freshwater Science section).
- 2020-present: Member of the Editorial board of *Water MDPI* (Section board: Hydraulics and Hydrodynamics).

- 2017-present: Member of the Editorial board of *AIMS Geosciences*.
- 2015-2016: Guest Editor for a Special Issue in *Adv. Water Resour.*, titled “*Ecogeomorphological feedbacks of water fluxes, sediment transport and vegetation dynamics in rivers and estuaries*” 93 (B), pp 151-336 (2016).
- 2018-2019: Topic Editor for a “Research Topic” of *Frontiers in Environmental Science*, titled “*Ecohydraulics and morphodynamics of water systems*” (2019)
- 2020-2021: Guest Managing Editor for a Special Issue in *Geomorphology*, titled “*River Morphodynamics and Restoration*” (2021).
- Reviewer for: *Nature-Geo.*, *PNAS*, *Sci. Rep.*, *Geophys. Res. Lett.*, *J. Fluid Mech.*, *J. Geophys. Res.*, *Geology*, *Water Res. Resour.*, *Frontiers Env. Sci.*, *ASCE J. Hydraul. Engng.*, *Earth Sur. Proc. Land.*, *J. Hydrol.*, *Adv. Water Resour.*, *Hydrol. Sci. J.*, *Frontiers, Geology*, *Env. Fluid Mech.*, *Water MDPI*.

#### *Participation to the scientific community for research, dissemination and sharing*

- 2018-2021: Member of the COST ACTION “Converges” dedicated to riparian ecosystems. “Converges” framework supports collaborative transnational activities under a system of networks of investigators based on open access and bottom-up principles, covering all scientific and technological domains. Camporeale is part of the COST-action as “Participant” and “Management Committee Substitute” (<https://converges.eu/management-committee/>).
- 2021-present: As a member of the Glacier-Lab he is active in collaborating with the Regional Environmental Protection Agency (ARPA) of Aosta Valley, for environmental monitoring of glacial and periglacial environments, in particular in the region of the Rutor Glacier.
- Organization and chair of a conference session in “*Fluvial and Estuarine Ecomorphodynamics: Interactions among hydrodynamics, sediment transport and vegetation*” (co-organized with Andrea A. D’Alpaos and M. Toffolon) in: XXXIV *Convegno di Idraulica e Costruzioni idrauliche*, Bari, September 2014.

#### **Research projects** wherein Carlo Camporeale served as a **scientific responsible** and/or **project coordinator** (overall funding amounts to about 1,5 M€):

- 2011-2013: “*Tecnological innovation in the water-energy-wood production chain: pilot project in Tanaro catchment*” a **competitive regional project** funded by Regione Piemonte. Funding: 213,000 €.
- 2016-2019: “*Hemodynamic evaluation of arterial pressure from ecocardiographic imaging through a fluid dynamic approach*”. Funding: 60,000 €. The project is a **competitive national project**, funded by the Université Franco-Italienne (Vinci project).
- 2016-2019: “*Development and validation of a mathematical model for esteem of central blood pressure in normal subjects and in patients with proximal aorta dilatation*”, in collaboration with Molinette Hospital, Torino. Funding: 150,000 €. The project was a competitive **national project awarded through a peer-review process** and it was funded by the Italian Ministry of Health.
- 2018-2021: *Joint Research Project with Top Universities*” in collaboration with ETH Zurich (Prof. Annunziato Siviglia). Funding: 80,000 €. The project was awarded after an **internal competition in the Politecnico di Torino** and it was funded by “Compagnia di San Paolo”.
- 2019-2021: “*Scientific-technical activities to support the design of sediment management in the Orco River*”. Funding: 137,000 €. **Partnership agreement with Metropolitan City of Turin** and was funded by Regione Piemonte.
- 2020-2022: “*Partnership agreement with River Po District Authority (Autorità Di Bacino Distrettuale del fiume Po)*” for the update the **hazard maps** and the **flood risk maps** for the 2<sup>o</sup> cycle of the Flood Risk Management Plan (FRMP), as required by the **European Union Floods Directive**. First Agreement: Preliminary maps with expeditious methods. Funding: **56,000** €. Second Agreement: Generation of the definitive maps by using 2D-hydraulic simulations. Funding: **71,250** €.
- 2021-2024: “*Incentivazione della internazionalizzazione del dottorato*” in collaboration with Ecole Central de Lyon (Prof. Pietro Salizzoni). Funding: 80,000 €.
- 2022-2023: “*Réponse Impacts Tempête Alex – R.I.T.A*” – Interreg – Alcotra Funding: 61,000 €.
- 2023-2025: “*Eco-geomorphic CARbon Pumping from rivers To bIUe caRbon Ecosystems (e-CAPTURE)*”. **Competitive national project** awarded through a peer-review process and funded by the Italian Ministry for University and Research. Funding: 200,000 €.
- 2024-2028: Horizon-RIA “*Improved CarbOn cycle represeNtation through multi-sCaLe models and Earth obseRvation for Terrestrial ecOsystems*” (CONCERTO) Funding Polito: 418,000 €

Research projects wherein Carlo Camporeale served as a **collaborator** (overall funding amounts to about 850,000 €):

- 2003-2005: “Role of (riparian and in-stream) vegetation on the morphodynamic response of river systems”. **Competitive national project** awarded through a peer-review process and funded by the Italian Ministry for University and Research. Funding: 60,000 €.
- 2005-2006: “Analysis and review of previous studies dealing with the hydraulic assessment of Tanaro River, at Cittadella Bridge of Alessandria”. **Partnership agreement with Alessandria City Council**. Funding: 50,000 €.
- 2006-2008: “Interactions between morphodynamic and ecology in river and riparian environments”. **Competitive national project** awarded through a peer-review process and funded by the Italian Ministry for University and Research. Funding: 50,000 €.
- 2008-2010: “Research on the problems related to DDT transport in rivers downstream from the industrial plants at Pieve Vergonte”. **Partnership agreement with Regione Piemonte**. Funding: 30,000 €.
- 2008-2010: “Processes of interactions between river morphodynamics and riparian vegetation dynamics”. **Competitive national project** awarded through a peer-review process and funded by the Italian Ministry for University and Research. Funding: 50,000 €.
- 2011-2013: “Assessment of small hydropower production potential in North-western Italy”. **Competitive national project** awarded through a peer-review (Interreg IV, RENERFOR project). Funding: 80,000 €.
- 2020-2021: Partnership agreement with TELT SAS, for “The hydraulic characterization of TELT site, Salbertrand, with the aim to monitoring aquatic meso-habitat in wetlands (Dora Riparia)”. Funding: 70,000 €.
- 2023-2032: LIFE IP Climax-Po “Life Ip Climate adaptation for the Po River Basin District” Funding Polito: 2,000,000 €

Since 2005, Carlo Camporeale has been teaching several courses at Politecnico di Torino, including MD and BD courses (Hydraulics, Fluid Mechanics, Industrial Fluid Mechanics, River Hydraulics), specializing Master Programs (Water in Industrial processes. Geology and Hydrogeology) and Courses for Ph.D students. Other academic responsibility are: Member of Doctoral Committee of Civil and Environmental Engineering (2016-present); Member of the “Award Committee” of the Italian Water Engineers Association (GII) for the Award for Doctoral Thesis in Water Engineering (2016-2020); Invited Member of the final examination Commissions for the Ph.D titles in: University of Trento (2014), University of Genoa (2018, 2023), University of Trento (2018); Invited member in the Graduation Commission of Politecnico di Milano as a co-examiner for Master Degree’s Thesis. In the last years he supervised more than 80 master thesis works.

Torino, 04/06/2024

