Allegato B

PAOLO CIAMPI Curriculum Vitae "ai fini della pubblicazione"

Place ROME Date 31/05/2023

Part I – General Information

Full Name	PAOLO CIAMPI
Spoken Languages	Italian, English

Part II – Education

Туре	Year	Institution	Notes (Degree, Experience,)
University graduation	2012	Department of Earth Sciences, Faculty of Mathematical Physical	Laurea triennale in Scienze Ambientali
		and Natural Sciences - University of Rome "La Sapienza"	Thesis in Sedimentary Geology entitled: "Assessment of Cosismic Activity of Faults in Poorly Lithified Sediments Through X-Ray Diffraction Analysis: The Case of the Croton Basin"
Post-graduate studies	2015	Department of Earth Sciences, Faculty of Mathematical Physical and Natural Sciences - University of Rome "La Sapienza"	Laurea Magistrale in Geologia Applicata all'Ingegneria, al Territorio e ai Rischi Thesis in Applied Geology and Dynamics of Pollutants and
			Remediation of Polluted Sites titled: "Geological Model of Decimomannu Airport (CA) to Support the Design of Groundwater Remediation Strategy," awarded 110/110 with honors
PhD	2020	Department of Earth Sciences, Faculty of Mathematical Physical and Natural Sciences - University of Rome "La Sapienza"	PhD in Scienze della Terra Thesis on Integrated Multidisciplinary Modeling (geological, geophysical and hydrochemical) to support the Remediation of Contaminated Sites awarded with honors

Part III – Appointments

IIIA – Academic Appointments

Start	End	Institution		Position
09/2016	02/2017	CERI Research Center, "	"La	Co.Co.Co about the digitalization and
		Sapienza" University of Rome		archiving in a GIS environment of previous
				data (geophysical, hydrogeochemical) for
				constructing the Conceptual Site Model of
				contaminated sites and the definition of
				remediation strategies
03/2020	12/2021	Department of Earth Sciences, '	"La	Post-Doc focusing on the development of
		Sapienza" University of Rome		environmental data (geophysical, ERT, MIP,
			•	LIF, geological, hydrological) management
				techniques for optimizing remediation

	strategies for polluted sites
12/2021TodayDepartment of Earth Sciences, "La Sapienza" University of Rome	Researcher (RTDA-PON) with project on 2D and 3D hydrogeophysical modeling in GIS environment and developer of multi-source
	remediation of contaminated sites with innovative technologies
IIIB – Other Appointments	

Start	End	Institution	Position
06/2014	06/2014	LaboratoRI Spa – ACEA Group	Stage on geological and geophysical
			(MASW) data processing aimed at the
			realization of environmental and electrical
			power plant projects

Part IV – Teaching experience

Year	Institution	Lecture/Course
2016	University of Rome "La Sapienza"	12 hours of seminars on integration of multidisciplinary competences (geophysical, geological, hydrochemical) in contaminated-site remediation and data systematization and modeling for the Master di II Livello in Caratterizzazione e Tecnologie per la Bonifica dei Siti Inquinati (CTBSI) – "La Sapienza" University of Rome
2018	University of Rome "La Sapienza"	20 hours of seminars on GIS systems for the management of hydrogephysical data and hydrogeological modelling supporting the remediation of polluted sites for the Master di II Livello in CTBSI – "La Sapienza" University of Rome
2018	University of Rome "La Sapienza"	12 seminar hours on 2D/3D integrated geological modeling, for conceptual model reconstruction - course of Rilevamento e Cartografia Geologico-Tecnica / Laurea Magistrale in Geologia Applicata all'Ingegneria, al Territorio e ai Rischi (GAITR)
2019	IEG Technologie GmbH	24 hours of seminars on 2D and 3D modelling of lithological, stratigraphic, and analytical data applied for contaminated site remediation
2019	University of Rome "La Sapienza"	8 seminar hours on GIS systems for data management in the characterization of polluted sites. Exercitations on dedicated software, for the Master di II Livello in CTBSI – "La Sapienza" University of Rome
2019	University of Rome "La Sapienza"	4 seminar hours on 2D/3D integrated geological modeling for conceptual model reconstruction - course of Rilevamento e Cartografia Geologico-Tecnica / Laurea Magistrale in GAITR
2020	University of Rome "La Sapienza	12 seminar hours on GIS systems for the remediation of polluted sites, for the Master di II Livello in CTBSI – "La Sapienza" University of Rome
2020	University of Rome "La Sapienza"	6 seminar hours on 2D/3D integrated geological modelling for conceptual model reconstruction - course of Rilevamento e Cartografia Geologico-Tecnica / Laurea Magistrale in GAITR
2021	University of Rome "La Sapienza	16 seminar hours on introduction to subsoil geology, soil classification methods in characterization, and GIS systems for the remediation of polluted sites, for the Master di II

	Livello in CTBSI – "La Sapienza" University of Rome
2021 University of Rome "La Sapienza"	6 seminar hours on 2D/3D integrated geological modeling, for conceptual model reconstruction - course of Rilevamento e Cartografia Geologico-Tecnica / Laurea Magistrale in GAITR
2022 University of Rome "La Sapienza	20 hours of teaching activity on subsoil geology, soil classification methods, GIS systems and 2D and 3D hydrogeophysical modeling for the characterization and remediation of polluted sites, as part of the Master di II Livello in CTBSI – "La Sapienza" University of Rome
2022 University of Rome "La Sapienza"	4 seminar hours on 2D/3D integrated geological modeling, for conceptual model reconstruction - course of Rilevamento e Cartografia Geologico-Tecnica / Laurea Magistrale in GAITR
2022 University of Bologna "DICAM"	2-hour seminar on integrated multi-source (geological, geophysical, hydrochemical) geomodeling to support the remediation strategy of contaminated sites, for the class of applied and environmental geology, master's degree course in low carbon technologies and sustainable chemistry
2022 University of Rome "La Sapienza	3 CFUs of teaching for the Geohazards course (bachelor's degree in Sustainable Building Engineering, Rieti Campus, University of Rome "La Sapienza") in the academic year 2021-2022
2023 University of Rome "La Sapienza	3 CFUs of teaching for the Geohazards course (bachelor's degree in Sustainable Building Engineering, Rieti Campus, University of Rome "La Sapienza") in the academic year 2022-2023
2023 University of Rome "La Sapienza	20 hours of teaching activity on subsoil geology, soil classification methods, GIS systems and 2D and 3D hydrogeophysical modeling for the characterization and remediation of polluted sites, as part of the master's degree program of the Master of II Level in CTBSI – "La Sapienza" University of Rome

Part V - Society memberberships, Awards and Honors

Year	Title
2017	Awarded funds by "La Sapienza" University of Rome for the Progetto di avvio alla ricerca titled:
	"Transport and fate of pollutants in heterogeneous geological settings: integrated modeling for
	defining sustainable remediation strategies
2019	ECOWORLD Prize 2019 - International Ecological Prize - Russian Academy of Natural Sciences
2021	AIGA Award - Italian Association of Applied and Environmental Geology - PhDs 2021
2021	NICOLE Award - Network for Industrially co-ordinated sustainable land management in Europe - Innovative Young Professional Award 2021
2021	Member of CERI - Center for Research Prediction, Prevention and Control of Geological Risks, University of Rome "La Sapienza
2021	Member of the academic group of NICOLE - network for industrially coordinated sustainable land management in Europe
2022	Chair of the AIGA workshop "Problem-Solving Approaches Guided by Applied Geology for Solutions to Natural and Anthropogenic Geohazards"
2022	Chair of the "Circular Economy" session of the NICOLE workshop "Technical solutions for climate resilience in industrial land management

2022	Tutor of a PhD project on the "Development of an integrated 4.0 system for the management and remediation of a contaminated site" at the Department of Earth Sciences at the University of Rome - La Sapienza
2022	Member of the Organizing Committee of the NICOLE workshop "Technical solutions for climate resilience in industrial land management," held in Brussels from 4-5/05/2022
2023	Member of the Topical Advisory Panel of the journal Sustainability (MDPI) for the Pollution Prevention, Mitigation and Sustainability section
2023	Member of the Teaching Board of the Master di II Livello in CTBSI, University of Rome "La Sapienza"
2023	Participation in Graduate Committees and Sessions as part of the Master di II Livello in CTBSI and the bachelor's degree in Sustainable Building Engeneering at the Campus of Rieti, University of Rome "La Sapienza"
2019- 2023	Reviewer of scientific articles on behalf of several international journals, such as Italian Journal of Groundwater, Italian Journal of Engeneering Geology and Environment, Groundwater Monitoring and Remediation, Groundwater for Sustainable Development, Science of the Total Environment; Journal of Hydrology, Environmental Monitoring and Assessment, Journal of Hazardous Materials, Frontiers in Bioscience-Elite, Environmental Earth Science; Cogent Social Sciences
2019- 2023	Co-tutor of thesis, as part of Laurea Magistrale in GAITR, Laurea Magistrale in Geologia di Esplorazione and bachelor's degree in Sustainable Building Engeneering at the Campus of Rieti, University of Rome "La Sapienza"
2019- 2023	Tutor and co-tutor of final dissertations, as part of the Master di II Livello in CTBSI, University of Rome "La Sapienza"

Part VI - Funding Information [grants as PI-principal investigator or I-investigator]

Year	Title	Program/Role	Grant value
2016	Contract "RFI, Rete Ferroviaria Italiana - CERI Research Center Sapienza University of Rome": "Feasibility study preparatory to the design of a Final Environmental Restoration Intervention of the Corticella site"	[I] Feasibility study for the design of a final environmental redevelopment of the Corticella site. Computerization and 2D/3D modeling of past data for reconstruction of the geological and hydrogeological model of the former corticella mining site	
2016	Agreement "NSPA Nato Support and Procurement Agency - CERI Research Center Sapienza University of Rome": "Operational project for the remediation of Decimomannu air base - POL deposit of military airport "G. Farina" - Decimomannu (CA)"	[I] Supervision and design of hydrogeological (borehole, slug test, emunition test) and geophysical (ERT, LIF) investigations at the site, generation of a multi-source model to support implementation of a pilot test and design of groundwater remediation interventions. POB Drafting	
2017	Contract "ERM Italia SpA - Department of Chemistry, Sapienza University of Rome": "Scientific support to the predisposition of an integrative campaign of investigations and the design of the remediation intervention in a contaminated site	[I] Reconstruction of conceptual model of a chlorinated solvent polluted site for identification of the source of contamination. Supervision of MIP technology investigations and comparative evaluation of potentially applicable technologies	
2018	Agreement "ENEL SpA - Department of Chemistry, Sapienza University of	[I] Setup and supervision of integrative geophysical investigations	

2019	Rome": "Feasibility study for the remediation of the groundwater at the site of the Livorno thermoelectric power station from contamination by chloride solvents ENI Rewind - Department of Chemistry, Sapienza University of Rome" "Preliminary design for the application of GCW technology for optimizing supernatant removal at the Gela site" Design and operation of a pilot plant based on GCW technology as a system to accelerate remediation in the island 5 area of the Manfredonia site" "Eni rewind fuel stations - study groundwater safety and remediation technologies alternative to P&S-P&T" "Health and environmental risk analysis and remediation operational project – Ferrandina site - SIN Val Basento"	 using MIP technology, 3D geological and hydrochemical-physical modeling to support the design of groundwater remediation strategy using recirculating wells (GCWs) [I] Modeling in GIS environment and 3D hydrogeochemical conceptual model reconstruction of the Gela SIN as a comprehensive information base for the design of 3 GCWs for As, DNAPL, and LNAPL removal [I] Conceptual model construction of the Manfredonia SIN, pilot test design, and supervision of installation activities of a GCW for As removal in fractured limestone [I] Hydrogeological modeling of three fuel stations for identification of innovative and alternative remediation technologies to P&T [I] Reconstruction of the conceptual model of the ex-Liquichimica site, co-designing remediation interventions and collaboration in the preparation of the POB. Presentation of intervention strategy to the 	
2019	Agreement "Magneti Marelli SpA - Department of Chemistry, Sapienza University of Rome": "Feasibility study propedeutical to the definition of interventions, to support the MNA-based remediation at the Magneti Marelli site in	Ministry of Ecological Transition [I] Supervision of geophysical surveys using MIP technology and installation of coaxial recirculation wells (CGC) for remediation of a chlorinated solvent plume. Reconstruction of a 3D multi-	
	Bologna"	temporal and multidisciplinary model following all phases of the remediation	
2019	Contract "Sersys Ambiente srl Department of Chemistry, Sapienza University of Rome,": "Support to the Startup and Operation of the Plants in the environment of the aproved MISO Project for the CNH Industrial Spa Site in Modena"	[I] Supervision of site investigation, reconstruction of 3D conceptual model capable of evaluating the efficiency of GCWs to accelerate the removal of secondary sources of contamination compared to classical hydraulic containment systems	[
2020	Contract "I.N.F.A. Spa - Department of Chemistry: "Possible remediation actions on the deep aquifer belonging to the INFA plant in Aviano, with reference to contamination by chlorinated aliphatic compounds"	[I] Large-scale hydrogeochemical model reconstruction and representation of chlorinated solvent contamination status of the aquifer.	
2020	Agreement "RFI - Department of Chemistry, Sapienza University of Rome": "Scientific assistance during the remediation activities of the contaminated groundwater of the new Bologna HS	[I] Systematization of data in GIS environment, construction of geophysical-geological-chemical 3D model, installation of passive samplers and supervision (with ERT	

-	station"	monitoring in near real time) of colloidal activated carbon injection activities at pilot and full scales	
2021	Agreement "GEA S.r.l Research Center CERI Sapienza University of Rome": "In- depth study of the characterization of the exhausted landfills in Santa Maria, municipality of Roasio to obtain a conceptual model of reference, useful for the subsequent stages of evaluation of the interventions to be put in place, if necessary"	[I] Identification of pollutant sources and reconstruction of a robust conceptual model of the site, using geophysical and hydrogeological modeling, as well as evaluation of the evolution of groundwater contamination status, health- environmental risk analysis, and definition of a monitoring plan	
2021	Agreement "IEG Technologie GmbH - CERI Research Center Sapienza University of Rome": "Management of integrated geological, hydrogeological and hydrochemical data in remediation projects"	[I] Creation of 3D hydrogeophysical conceptual model for complex data management at a highly contaminated site in Hungary. Near real-time monitoring of the application of a new technology involving the installation of a recirculating well (GCW) combined with nutrient injection in Barcelona	
2022	Contract "Eni Spa - CERI Research Center Sapienza University of Rome": "Technical-scientific support in the drafting of documents and reconstruction of a 3D solid conceptual model of a contaminated site to be presented to both Control Bodies and the Public Prosecutor's Office"	[I] Construction of a 3D geophysical, hydrogeological, and hydrochemical conceptual model definition/revision. Supervision and designing LIF/MIP geophysical surveys.	,
2022	Contract "Province of Mantua - University of Rome "La Sapienza": "Updated definition of the cognitive base of the Sisma Canal, the elaboration of a characterization plan and the drafting of a conceptual model preparatory to the design of remediation interventions"	[I] Updated definition of the cognitive base of the SISMA Channel to be carried out using all available information, elaboration of a Characterization Plan and the drafting of a conceptual model preparatory to the design of remediation interventions	
2022	Agreement "Municipality of Mantua - CERI Research Center Sapienza University of Rome": "Preparation of the preliminary document for the design of interventions for the environmental restoration of the Site of National Interest (SIN) "Lakes of Mantua and Chemical Pole	[I] Reconstruction of a preliminary conceptual model of the site and the evolution of the qualitative status of sediments of surface water bodies for the preparation of a characterization plan and the subsequent design of remediation measures	
2022	Agreement "Air Force - CERI Research Center Sapienza University of Rome for environmental remediation activities from fuel spills POL network areas, implementing the Decimomannu Air Force Airport remediation operational plan	[I] Scientific supervision of activities (processing of ERT hydrogeochemical and geophysical monitoring results in near real time, implementation of geo-referenced database, drafting of illustrative reports on remediation progress, support to the administration in the management of the procedure also	·

		with participation in technical tables with control agencies)
2022	Contract "Trireme Srl - CERI Research Center Sapienza University of Rome": "Execution of a research program concerning technical-scientific support in the development of conceptual models of contaminated sites for which the Client has acquired the task of designing remediation interventions"	[PI] 3D hydrogeochemical and geophysical (MIP) geomodeling for remediation design at complex polluted sites.
2022	Contract "Società Studio De Cesare- CERI Research Center Sapienza University of Rome": "Research program concerning the in-depth characterization of a site in Cecchignola (Rome), to obtain a conceptual reference model, useful for the definition of background values of As, Be, Se, and V concentrations in soil"	[PI] Definition of a multi-source conceptual model to support the identification of background values for As, Be, Se, and V concentrations in soil in line with SNPA guidelines
2022	Convention "Stantec S.p.A CERI Research Center Sapienza University of Rome: "Realization of a study to assess the compatibility of As values detected in groundwater at the former Customs House of Scalo San Lorenzo, with the geological-geochemical characteristics of the soils"	[PI] Reconstruction of a georeferenced geodatabase and a 3D time-sensitive hydrogeochemical model for the definition of background values for As in groundwater, according to SNPA guidelines

Part VII – Training, Research, Collaboration, and Dissertation Activities

Keywords	Brief Description			
Remediation Geology	Training period abroad, at "Gubkin Russian State University of Oil and Gas - Moskow" and "Lobachevsky State University and V.V. Dokuchaev Soil Science Institute - Nizhni Novgorod", Russia (from 16/07/2018 to 22/07/2018) to establish a collaboration on the remediation of some contaminated sites in Russia through a geology-focused approach			
Hydrogeophysics	Training period abroad at "Department Monitoring and Exploration Technologies (MET), Helmholtz Centre for Environmental Research UFZ, Leipzig," Germany (from 2/05/2019 to 5/07/2019) to deepen knowledge of direct push tools (LIF, OIP, MIP) and geoelectric investigations (ERTs tested at the field scale during hot water injection) to capture HRSC			
Groundwater modeling	Participation in the Groundwater Model Calibration using PEST Course - Order of Engineers of Milan			
Sharing Science	Participation in 14 national and 18 international conferences as a speaker and co- author			
Get up to date	Participation in courses, seminars, webinars, and training activities			

Part VIII – Summary of Scientific Achievements

Product type	Number	Data Base	Start	End
Papers [international]	12	Scopus	2019	2023

Total Impact factor	60.778
Total Citations	100
Average Citations per Product	8.3
Hirsch (H) index	7
Normalized H index*	1.4

*H index divided by the academic seniority.

Part IX– Selected Publications

- Ciampi P., Esposito C., Petrangeli Papini M. (2019) Hydrogeochemical Model Supporting the Remediation Strategy of a Highly Contaminated Industrial Site. Water 11 (7), 1371, https://doi.org/10.3390/w11071371 (IF: 3.628 – Web of Science / Citazioni: 18, Citescore: 4.8, SJR: 0.716 - Scopus)
- 2) Ciampi P., Esposito C., Viotti P., Boaga J., Cassiani G., Petrangeli Papini M. (2019) An Integrated Approach Supporting Remediation of an Aquifer Contaminated with Chlorinated Solvents by a Combination of Adsorption and Biodegradation. Appl. Sci. 9 (20), 4318, https://doi.org/10.3390/app9204318 (*IF: 2.921 – Web of Science | Citazioni: 14, Citescore: 3.7, SJR:* 0.507 - Scopus)
- 3) Bozzano F., Ciampi P., Del Monte M., Innocca F., Luberti G.M., Mazzanti P., Rivellino S., Rompato M., Scancella S., Scarascia Mugnozza G. (2020) Satellite A-Dinsar Monitoring of the Vittoriano Monument (Rome, Italy): Implications for Heritage Preservation. Italian Journal of Engineering Geology and Environment 2, DOI: 10.4408/IJEGE.2020-02.O-01 (IF: n.d. Web of Science / Citazioni: 5, Citescore: 0.9, SJR: 0.154 Scopus)
- 4) Flores Orozco A., Ciampi P., Katona T., Censini M., Petrangeli Papini M., Deidda G.P., Cassiani G. (2021) Delineation of hydrocarbon contaminants with multi-frequency complex conductivity imaging. Sci. Total Environ. 768, 144997, https://doi.org/10.1016/j.scitotenv.2021.144997 (IF: 10.754 Web of Science / Citazioni: 14, Citescore: 14.1, SJR: 1.806 Scopus)
- 5) Ciampi P., Esposito C., Cassiani G., Deidda G.P., Rizzetto P., Petrangeli Papini M. (2021) A field-scale remediation of residual light non-aqueous phase liquid (LNAPL): chemical enhancers for pump and treat. Environ. Sci. Pollut. Res. 28, 35286–35296, https://doi.org/10.1007/s11356-021-14558-2 (IF: 5.19 Web of Science / Citazioni: 15, Citescore: 6.6, SJR: 0.831 Scopus)
- 6) Ciampi P., Esposito C., Bartsch E., Alesi E.J., Petrangeli Papini M. (2021) 3D dynamic model empowering the knowledge of the decontamination mechanisms and controlling the complex remediation strategy of a contaminated industrial site. Sci. Total Environ. 793, 148649, https://doi.org/10.1016/j.scitotenv.2021.148649 (IF: 10.754 – Web of Science / Citazioni: 11, Citescore: 14.1, SJR: 1.806 - Scopus)
- 7) Ponzo F.C., Iacovino C., Ditommaso R., Bonano M., Lanari R., Soldovieri F., Cuomo V., Bozzano F., Ciampi P., Rompato M. (2021) Transport Infrastructure SHM Using Integrated SAR Data and On-Site Vibrational Acquisitions: "Ponte Della Musica–Armando Trovajoli" Case Study. Appl. Sci. 11, 6504, https://doi.org/10.3390/app11146504 (IF: 2.921 Web of Science / Citazioni: 9, Citescore: 3.7, SJR: 0.507 Scopus)
- 8) Ciampi P., Esposito C., Cassiani G., Deidda G.P., Flores-Orozco A., Rizzetto P., Chiappa A., Bernabei M., Gardon A., Petrangeli Papini M. (2022) Contamination presence and dynamics at a polluted site: Spatial analysis of integrated data and joint conceptual modeling approach. J. Contam. Hydrol. 248, 104026. https://doi.org/10.1016/j.jconhyd.2022.104026 (IF: 4.184 Web of Science / Citazioni: 8, Citescore: 5.3, SJR: 0.829 Scopus)
- 9) Ciampi P., Esposito C., Bartsch E., Alesi E.J., Nielsen C., Ledda L., Lorini L., Petrangeli Papini M. (2022) Coupled Hydrogeochemical Approach and Sustainable Technologies for the Remediation of a Chlorinated Solvent Plume in an Urban Area. Sustainability 14(16), 10317. https://doi.org/10.3390/su141610317 (IF: 4.089 – Web of Science / Citazioni: 2, Citescore: 5.0, SJR: 0.664 - Scopus)
- 10) Ciampi P., Esposito C., Bartsch E., Alesi E.J., Rehner G., Petrangeli Papini M. (2022) Remediation of chlorinated aliphatic hydrocarbons (CAHs) contaminated site coupling groundwater recirculation

well (IEG-GCW®) with a peripheral injection of soluble nutrient supplement (IEG-C-MIX) via multilevel-injection wells (IEG-MIW). Heliyon 8(11), e11402. https://doi.org/10.1016/j.heliyon.2022.e11402 (*IF: 3.776 – Web of Science / Citazioni: 3, Citescore: 4.0, SJR: 0.550 - Scopus*)

- 11) Ciampi P., Esposito C., Bartsch E., Alesi E.J., Rehner G., Morettin P., Pellegrini M., Olivieri S., Ranaldo M., Liali G., Petrangeli Papini M. (2023) A data-driven modeling approach for the sustainable remediation of persistent arsenic (As) groundwater contamination in a fractured rock aquifer through a groundwater recirculation well (IEG-GCW®). Environ. Res. 217, 114827. https://doi.org/10.1016/j.envres.2022.114827 (IF: 8.431 Web of Science | Citazioni: 1, Citescore: 9.5, SJR: 1.507 Scopus)
- 12) Antonielli B., Iannucci R., Ciampi P., Martino S., Marchetti D., Giudici F., Scarascia Mugnozza G., Bozzano F. (2023) Engineering-geological modeling for supporting local seismic response studies: insights from the 3D model of the subsoil of Rieti (Italy). Bull. Eng. Geol. Environ. 82, 235. https://doi.org/10.1007/s10064-023-03259-4 (IF: 4.130 – Web of Science / Citazioni: 0, Citescore: 5.8, SJR: 1.084 - Scopus)

Roma, 31/05/2023