



Nationality: Italian | sergio.scanu@cmcc.it

● WORK EXPERIENCE

08/2020 – CURRENT – Italy

COORDINATED AND CONTINUOUS COLLABORATION – EURO-MEDITERRANEAN CENTER ON CLIMATE CHANGE

Marine water monitoring activities

05/2020 – 08/2020 – Italy

COORDINATED AND CONTINUOUS COLLABORATION – EURO-MEDITERRANEAN CENTER ON CLIMATE CHANGE

operational oceanography models validation and coastal studies

05/2019 – 04/2020 – Italy

COORDINATED AND CONTINUOUS COLLABORATION – EURO-MEDITERRANEAN CENTER ON CLIMATE CHANGE

operational oceanography models validation (INNO-DUNECOST and IMPRESSIVE projects)

02/2014 – 02/2019 – Italy

TEMPORARY RESEARCH FELLOW – LABORATORY OF EXPERIMENTAL OCEANOLOGY AND MARINE ECOLOGY - DEB DEPARTMENT - TUSCIA UNIVERSITY

Methodological analysis and standardization of marine coastal monitoring activities for the evaluation of the impacts induced by the exploitation of marine renewable energy sources

2013 – 2013 – Italy

FELLOWSHIP – LABORATORY OF EXPERIMENTAL OCEANOLOGY AND MARINE ECOLOGY - DEB DEPARTMENT - TUSCIA UNIVERSITY

Sediment accumulation rates assessment in the Capo Linaro area to support research activities for *Posidonia oceanica* transplant

2012 – 2012 – Italy

FELLOWSHIP – LABORATORY OF EXPERIMENTAL OCEANOLOGY AND MARINE ECOLOGY - DEB DEPARTMENT - TUSCIA UNIVERSITY

Study for the application of new technologies for the production of energy from marine renewable sources

2011 – 2011 – Italy

FELLOWSHIP – LABORATORY OF EXPERIMENTAL OCEANOLOGY AND MARINE ECOLOGY - DEB DEPARTMENT - TUSCIA UNIVERSITY

Study of the seasonal evolution of sediment plumes of the Tiber river and of the smaller basins of Latium Region through the application of numerical models

2007 – 2010 – Italy

Research activity related to the study of the spatial and temporal distributions of trace metals in the coastal area of the northern Tyrrhenian Sea

2006 – 2006 – Italy

FELLOWSHIP – LABORATORY OF EXPERIMENTAL OCEANOLOGY AND MARINE ECOLOGY - DEB
DEPARTMENT - TUSCIA UNIVERSITY

Calibration of hydrodynamic numerical model

● **EDUCATION AND TRAINING**

2007 – 2010 – L.go dell'Università snc, Viterbo, Italy

DOCTOR OF PHILOSOPHY - ECOLOGY AND MANAGEMENT OF BIOLOGICAL RESOURCES - DEB
Department - Tuscia University

<https://www.unitus.it/it/dipartimento/deb>

● **LANGUAGE SKILLS**

Mother tongue(s): **ITALIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C2	C1	C1	C2

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

● **DIGITAL SKILLS**

Microsoft Office: proficient user of Word, Excel and Powerpoint | Windows (Optimal Knowledge) | Unix - Linux (Optimal Knowledge) | Golden Software Surfer | Golden Software Grapher | Golden Software Didger | ArcGIS Desktop (ArcView) 9.3.1 | QGIS - Quantum GIS | MATHCAD

● MAIN RESEARCH TOPICS

Research Topics

The research activity is focused on two main areas: the study of the sedimentology of the continental shelf with particular reference to the coastal dynamics and the interactions between the biocoenoses and the sedimentary environment and the study of the pollution of coastal marine environments with particular reference to accumulation processes of persistent substances, heavy metals, polycyclic aromatic hydrocarbons both in sediments and in biota. The research activities carried out over the years have made it possible to acquire a solid knowledge of coastal dynamics processes.

- Excellent knowledge of numerical simulation models based on the two-dimensional finite element method: SMS 9.2 (with application of ADCIRC and RMA2 hydrodynamic simulation models, of the Particle Tracking PTM model and of the STWAVE wave climate model).
- Experience in the use of three-dimensional numerical simulation models based on the finite difference method: DELFT3D (with application of ecological simulation models).
- Experiences in the use of the WASP application for the analysis of the local wind climate.
- Experience of in situ measurements using ADCP (acoustic doppler current meter) and data analysis.
- Experience in the use of Mathcad and Matlab applications
- Experience in the planning, management and execution of sediment sampling (cores and grabs).
- Experience in the use of geochronology techniques for recent sediments (210-Pb, 137-Cs, 134-Cs, 241-Am).

● DRIVING LICENCE

Driving Licence: B

● OTHER INFORMATION

Other Information

Didactic skills acquired starting from 2010 through seminars. From 2013 to 2015 teacher of the course of "Water and marine sediment sampling techniques", Schools and Training Office, General Command of the Port Authority Corps - Department 4 - Livorno.

Founding member of "Terza Strada" association (<https://www.terzastrada.it/>)

Under 15 waterpolo National Champion with SNC Civitavecchia (1989)

Under 17 waterpolo National Champion with SNC Civitavecchia (1991)

PUBLICATIONS

recent publications

Scanu, S.; Piazzolla, D.; Bonamano, S.; Penna, M.; Piermattei, V.; Madonia, A.; Manfredi Frattarelli, F.; Mellini, S.; Dolce, T.; Valentini, R.; Coppini, G.; Fersini, G.; Marcelli, M. Economic Evaluation of *Posidonia oceanica* Eco system Services along the Italian Coast. *Sustainability* 2022, 14, 489. <https://doi.org/10.3390/su14010489>.

Bonamano S., Piazzolla D., Scanu S., Mancini E., Madonia A., Piermattei V., Marcelli M. Modelling approach for the evaluation of burial and erosion processes on *Posidonia oceanica* meadows. *Estuarine, Coastal and Shelf Science*, 2021, Volume 254. <https://doi.org/10.1016/j.ecss.2021.107321>.

Piazzolla D., Cafaro V., De Lucia G.A., Mancini E., Scanu S., Bonamano S., Piermattei V., Vianello A., Della Ventura G., Marcelli M. Microlitter pollution in coastal sediments of the northern Tyrrhenian Sea, Italy: microplastics and fly-ash occurrence and distribution. *Estuarine, Coastal and Shelf Science*, 2020, 241.

Piazzolla D., Cafaro V., Mancini E., Scanu S., Bonamano S., Marcelli M. Preliminary Investigation of Microlitter Pollution in Low-Energy Hydrodynamic Basins Using *Sabella spallanzanii* (Polychaeta: Sabellidae) Tubes. *Bulletin of Environmental Contamination and Toxicology* 2020, 104, 345–350.

Marcelli M., Scanu S., Frattarelli F.M., Mancini E., Carli F.M. (2018). A benthic zonation system as a fundamental tool for natural capital assessment in a marine environment: A case study in the Northern Tyrrhenian Sea, Italy. *Sustainability* 2018, 10(10), 3786.

Scanu S., Piazzolla D., Manfredi Frattarelli F., Mancini E., Tiralongo F., Brundo M.V., Tibullo D., Pecoraro R., Copat C., Ferrante M., Marcelli M. (2016). Mercury Enrichment in Sediments of the Coastal Area of Northern Latium, Italy. *Bulletin of Environmental Contamination and Toxicology* 96 (5): 630 – 639. DOI:10.1007/s00128-016-1776-9.

Piazzolla D., Scanu S., Manfredi Frattarelli F., Mancini E., Tiralongo F., Brundo M.V., Tibullo D., Pecoraro R., Copat C., Ferrante M., Marcelli M. (2015). Trace-Metal Enrichment and Pollution in Coastal Sediments in the Northern Tyrrhenian Sea, Italy. *Archives of Environmental Contamination and Toxicology* 69 (4): 470 – 481. DOI:10.1007/s00244-015-0166-3.

Scanu S., Paladini de Mendoza F., Piazzolla D., Marcelli M. (2015). Anthropogenic impact on river basins: temporal evolution of sediment classes and accumulation rates in the northern Tyrrhenian Sea, Italy. *Oceanological and Hydrobiological Studies* 44 (1): 74 – 86. DOI:10.1515/ohst-2015-0000.

Scanu S., Soetebier S., Piazzolla D., Tiralongo F., Mancini E., Romano N., Marcelli M. (2015). Concentrations of As, Cd, Cr, Ni, and Pb in the echinoid *Paracentrotus lividus* on the coast of Civitavecchia, Northern Tyrrhenian Sea, Italy. *Regional Studies in Marine Science* 1: 7 – 17. DOI:10.1016/j.rsma.2015.02.001.