



Francesco Raiola

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Address: V.lo Professore Aubel 14, 21014, Laveno-Mombello, Italy (Home) |

Address: E. Fermi 2749, 21027, Ispra, Italy (Work)

● WORK EXPERIENCE

19 OCT 2020 – CURRENT Ispra, Italy

SENIOR NUCLEAR PHYSICIST NUVIA PROCESS

1. Scientific support at operational decommissioning projects for ND&WM (Nuclear Decommissioning and Waste Management Directorate) EC-DG J.1
2. Scientific responsible of the radiological assessment of the STRRL (liquid nuclear waste deposit) for Contaminated Soil Remediation Pilot Project and LCSR (hot-cells facility) by gamma camera and other modern technologies in EC JRC-Ispra
3. Project Manager of the Use of Digital Technologies project (AI, AR/VR, DLT, cloud computing, 3D printing, nano-technology, etc.) in support of the nuclear decommissioning activities, through the collection of all the relevant information on their use cases from different media sources in decommissioning and in other innovative fields
4. IT and scientific assistant to hybrid work for supporting the planning and coordination of on-line webinars and training courses for G.II.7 unit: ESARDA 2021-2022 and EURATOM safeguard training 2020; using some of the most advanced platform: MS TEAMS, ZOOM and WebEx. Responsible of the preparation of questionnaire, feedback in a digital form and their evaluation through infographics display.
5. Scientific support to pilot projects research activities with G.II.7 such: GIOCONDA, WCS, INSIDER, CONFINE (Nano technology)
6. Scientific project manager of e-training modules for EURATOM inspectors through the use of Virtual Reality technology
7. Scientific contributor for the Decommissioning Knowledge Management project in the Science Hub (SH) portal of the EC-JRC to prepare the Decommissioning Waste Management unit to become a knowledge center (Knowledge for Policy), like: Web-editor and scientific advisor of the decommissioning knowledge management webpage in SH
8. Scientific expert consultant for the preparation of the news and documentations for the decommissioning knowledge management portal
9. Scientific coordinator to workshops, seminars, training modules and other teamwork activities in knowledge management for nuclear decommissioning (NDKM team in Unit J.I) and production of knowledge products
10. Teamwork experience in interacting with national and international experts in the field of nuclear decommissioning through preparation of videoconferences, workshop, site event and posters/ related media

Business or Sector Professional, scientific and technical activities |

Department Nuclear Decommissioning and Waste Management | **Address** E. Fermi 2749, 21027, Ispra, Italy |

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1 MAY 2021 – CURRENT Bruxelles, Belgium

INDEPENDENT NUCLEAR EXPERT CONTRACT FOR EC EC-JRC

1. H2020 – appointed as radiological and nuclear expert consultant for CoE CBRN risk management initiative for the evaluation of funded projects under the EC CoE CBRN risk mitigation initiative (2 months for 4 projects)
2. Evaluation of proposals, prize applications and tenders
3. Monitoring of actions, grant agreements, public procurement contracts

Business or Sector Other service activities | **Department** Nuclear Safety and Security |

Address bruxelles, Belgium

30 JUN 2014 – 29 JUN 2020 Ispra, Italy

PROJECT OFFICER - SCIENTISTS JOINT RESEARCH CENTRE, EUROPEAN COMMISSION

1. Scientific and managing support to the Illicit Trafficking Radiation Detection Assessment program for testing nine families of radiation detection equipment in Nuclear Security (ITRAP+10 program)
2. Nuclear Security trainer officer for Front Line Officer and Border Guard for illicit trafficking of radioactive and nuclear materials at border crossing in collaboration with US DoE (NSDD), IAEA and DG-ENER/TAXUD (EC)
3. Management of projects for nuclear security & safety in extra EU countries under the EU CBRN CoE risk mitigation initiative
4. RN scientific evaluator for EC CBRN CoE risk mitigation initiative (6yrs) of funded projects and training activities in nuclear security and safety (FLO training, NAP/NAQ risk management , and technical and training support for radiological instrumentations installations)
5. Lecturer and organizer for the ESARDA courses (since 2016) in Nuclear Safeguards and Non-Proliferation courses as well for the International Summer School on Nuclear Decommissioning and Waste management 2015-17
6. Preparation and delivery of safeguards training curricula for EURATOM and JAEA inspectors under the DG ENER
7. Scientific responsible of the tomography project for waste management and nuclear decommissioning R&D under the MetroDECOM II project at the Decommissioning and Waste Management unit

Department Nuclear Safety and Security | **Address** E. Fermi 2749, 21027, Ispra, Italy |

Website <https://ec.europa.eu/jrc/en>

9 JAN 2014 – MAY 2014 Sturgis, United States

GENERAL PRODUCTION LINE WORKER MORGAN OLSON INDUSTRY

1. Produced and optimized of the construction of industrial vehicles
2. line operator for industrial truck

Address Sturgis

OCT 2012 – AUG 2013 Budapest, Hungary

RESEARCH SCIENTIST WIGNER RESEARCH CENTRE FOR PHYSICS, HUNGARIAN ACADEMY OF SCIENCES

- Used a Zygo NewView 7100 scanning white light interferometer to characterize the high-precision 3D profilometry of surface features
- Extensive work with LabView 8 to control a series of motorized stages for X-ray spectroscopy
- Designed and built a protection safety cage and a support frame for an X-ray source using Solidworks

Address Budapest, Hungary

AUG 2008 – FEB 2011 Golden, United States

POST-DOCTORAL FELLOW COLORADO SCHOOL OF MINES, DEPT. OF PHYSICS

- Used a neutron radiation detector and measurement instrumentation (plastic scintillator BC408).
- Performed mathematical modeling of an array of neutron detectors using C++, ROOT, GEANT4 code
- Managed and tested strip particle silicon detectors (single/double layer)

- Advised two graduate students throughout their senior project

Address Golden, United States

SEP 2006 – APR 2007 Bochum, Germany

SCIENTIFIC ADVISOR DYNAMITRON TANDEM LABORATORY AT THE RUHR-UNIVERSITÄT OF BOCHUM

- Used implantation procedure of deuterium in metallic, Lanthanides targets and insulators in a clean vacuum-free environment
- Used nuclear analysis techniques and sputtering procedures to clean and analyze the chemical composition of implanted targets.
- Studied half-life of various radioisotopes in metallic and insulator environments using g and particle detectors.

Address Bochum, Germany

MAY 2007 – AUG 2008 Southbend, United States

POST-DOCTORAL RESEARCH ASSOCIATE UNIVERSITY OF NOTRE DAME NUCLEAR SCIENCE LABORATORY

- Maintained a light ion source accelerator and its accelerator line
- Created mechanical drawings using AUTOCAD to build a vacuum system (using ISO and ASA standard) for nuclear experiments
- Performed nuclear experiments using NaI and HPGe detectors

Address South Bend, United States

● EDUCATION AND TRAINING

APR 2001 – FEB 2006 Bochum, Germany

PHYSICAL DOCTOR DEGREE IN NUCLEAR ASTROPHYSICS Ruhr-Universität of Bochum

- nuclear physics
- advanced mathematics
- chemistry
- statistical analysis
- astronomy
- experimental physics
- astrophysics

Acquire knowledge:

- accelerator physics
- material analysis
- chemistry laboratory
- radioactive source management
- radioprotection

Address Bochum, Germany

AUG 1995 – MAY 2001 Catania, Italy

LAUREA IN PHYSICS University of Catania

- physics
- mathematics
- chemistry
- theoretical physics
- experimental physics
- statistics
- solar physics
- astrophysics
- astronomy

Address Catania, Italy

● LANGUAGE SKILLS

Mother tongue(s): **ITALIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C2	C2	C2	C2	C1
GERMAN	A1	A1	A1	A2	A1
FRENCH	A1	A1	A1	A1	A1

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

● DIGITAL SKILLS

Organizational and planning skills | Motivated | Analytical skills | Radiation Physics | Experimental physics

MS Office

Microsoft Office | Microsoft Powerpoint | Outlook | Microsoft Excel | Microsoft Word

Video conferencing

Zoom | Team-work oriented | MS TEAMS | Skype | webex | Presenting | Good listener and communicator

Technical digital skills

Google Docs | Good technical problem-solving skill (application management, security software, etc.) | Social Media | Google Drive

● ADDITIONAL INFORMATION

RECOMMENDATIONS

References available on request

ORGANISATIONAL SKILLS

Organisational skills

1. Project management experience using the EU Project Management Methodology
2. Project collaboration and extensive teamwork with various national and international groups
3. Experience on hybrid-work using most of the common platforms for communication and interaction (MS TEAMS, ZOOM, WEBEX)
4. Technical and logistic experience on preparing training course and training curricula for nuclear safety, security and safeguards
5. Lecturer and organizer for international learning courses (ESARDA, Summer School in nuclear decommissioning and ELINDER) on nuclear safety, security and safeguards and decommissioning

COMMUNICATION AND INTERPERSONAL SKILLS

Communication and interpersonal skills - Experience presenting at national and international conferences

- Publications in various scientific peer review journals (to be available upon request)