

PERSONAL INFORMATION

Afra Romano

 c/o ENEA, v. E.Fermi 45, Frascati (Rome), 00044, Italy

WORK EXPERIENCE

January 2020 - today

Permanent Researcher

Temporary assigned to DTT S.c. a r.l. – Frascati (Rome) - Italy

- From 2026: DTT Responsible for the Gyrotron pre-series operation at FALCON facility within a trilateral agreement between EPFL-SPC, F4E and DTT
- From 2025: Responsabile Unico Progetto for the Contract on DTT ECRH components testing in Falcon facility in Loosanne, EPFL-SPC
- 2023-2024: Technical responsible of the WP1.3 project "Procurement of a minimal hardware for the DTT ECH Test Bed control system & instrumentation" of PNRR for the DTTU
- From 2022: Responsabile Unico Progetto for the procurement of 4 RF Loads for the ECRH system
- From 2022: Responsabile Unico Progetto for Gyrotron Framework Contract (specific contract 1 and 2 for pre-series Gyrotron and for additional 15 units)
- From 2021: Responsible Officer for DTT ECRH task (ECH Power Supplies Project, ECH RF Sources Project, ECH Control System&Diagnostics Project)
- From 2021: Responsible of the DTT ECRH system and its integration with the other HCD systems
- From 2020: Member of the Memorandum of Understanding for a Joint Procurement for Gyrotrons between DTT and F4E for RF sources/Gyrotrons procurement for the DTT ECRH system
- Technical-scientific activities to support DTT Project Manager, Project Board, Chief Engineering
- Member of DTT Physics Coordination Group

Dec 2010 – Dec 2019

Permanent Researcher

ENEA – Frascati (Rome)

- 2017 – 2019: Coordinator of the FTU Session Leaders Group
- 2017 - 2019: Member of the Coordination Board of FTU Tokamak
- From Nov 2018: involved on the design and procurement of the divertor VUV spectrometer for JT60-SA
- 2017-2019: Installation and commissioning of the Schwob X-VUV spectrometer on FTU; experimental exploitation of W injection and transport on FTU
- 2010-2011: Principal Investigator or Co-Investigator Task EFDA (development of diagnostics for SXR imaging and tomography in MCF)
- From 2010: Responsible for the VUV spectrometer, Laser Blow Off on FTU
- From 2016: Responsible for Cherenkov diagnostics for detection of supra-thermal electrons on FTU
- From 2007: Session Leader on FTU
- Inventor member of the patent No. 0001428734 (2015) and of the PCT / IB2016 / 054737 (2016)
- Characterization and installation of different X-ray detectors, gas and solid-state, sources and optics
- XUV spectrometer on FTU and Impurity injection by means laser blow off
- Study and measurements of supra-thermal electrons on FTU by means of Cherenkov detectors;
- Study of impurities transport on FTU plasmas with particular attention to those produced by tungsten

Mar 2010 - Dec 2010

Temporary contract as Researcher

ENEA – Frascati (Rome)

- Characterization and installation of different X-ray detectors, gas and solid-state

Jan 2010 - Feb 2010

Temporary contract as Researcher

CREATE (Consorzio di Ricerca per l'Energia e le Applicazioni Tecnologiche dell'Elettromagnetismo)

- Investigations with spectroscopic techniques for soft-X radiation and techniques development for Real Time applications

Jan 2007- Dec 2009

Research grant

ENEA – Frascati (Rome)

- Development of diagnostics for thermonuclear plasmas
- In charge for UV monitoring on FTU
- Start-up of a new laboratory for X-rays diagnostic for magnetic fusion plasma oriented to advanced analysis of Soft-X emissions for real-time applications, such as plasma control, both for an energy resolved X-ray imaging and tomography;
- Session Leader course for FTU operation and training
- Responsible for the VUV spectrometer, Laser Blow Off
- Soft X-ray and VUV spectroscopy investigation on magnetic fusion plasma at FTU, in particular concerning the emissions of Molybdenum at high temperature and assessment of the plasma impurity transport
- Use of impurity transport codes to simulate the spectroscopic measurements

May 2005 – Nov 2005

Researcher

INOA-CNR (Istituto Nazionale di Ottica Applicata) – Florence, Italy

- Development of Multivariate analysis methods of multispectral images for the conservation of Cultural Heritage

EDUCATION AND TRAINING

from 1997-2005

Master Degree in Physics

Università degli Studi di Lecce – Italy

PERSONAL SKILLS

Mother tongue(s)

Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	C1	B1	B1	C1
	Replace with name of language certificate. Enter level if known.				
French	B2	B2	B2	B2	B2
	Replace with name of language certificate. Enter level if known.				

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

Organisational / managerial skills

- RUP/Project Manager of DTT contracts (value up to 40 million euros)
- Coordination of DTT ECH System
- Coordinator of the FTU Session Leaders Group
- Local Committee for Workshop
- PI for EFDA task
- Laboratory activities
- Participation on the organization of scientific dissemination events for ENEA and DTT

ADDITIONAL INFORMATION

Biometric data

(source: Google Scholar)
 Total Indexed publications: more than 100;
 citations more than 800;
 h-index: 16

Patent

- Inventor Member of the Patent Cooperation Treaty (PCT) numero WO2018025069 (International

Application No. N.PCT/IB2016/054737, 2016), *Method and Apparatus for the Discrimination and Identification of Plastic Samples (ENEA 80% - BMCR 20%)* and of the National Patent, *Un metodo per discriminare plastiche nere di scarto di tipo RAEE ai fini dello sfruttamento per riciclo* N. 0001428734 (2015)