EUROPEAN CURRICULUM VITAE FORMAT

PERSONAL INFORMATION

Name	**PROF. ANDREA MOSTACCI**
E-mail	**Andrea.Mostacci@uniroma1.it**

GENERAL RESEARCH INTERESTS

Physics and Technology of Particle Accelerators, Application of THz radiation, Applied Electromagnetics, Microwave Measurement, RF design

BIBLIOMETRIC SUMMARY DATA

• Total international publications	>450, source scholar.google.com
• Total citations	>5300, source scopus.com
• Total cited paper	>275, source scopus.com
• H-index	38, source scopus.com

EDUCATION AND TRAINING

• Dates (1997-2001)	
• Name and type of organization providing education and training	Sapienza, University of Rome
• Principal subjects/occupational skills covered	Beam physics, Particle Accelerator technology, Microwave Measurements
• Title of qualification awarded	PhD in Applied Electromagnetism and Electro-Physical Science

• Dates (1991-1997)	
• Name and type of organization providing education and training	Sapienza, University of Rome
• Principal subjects/occupational skills covered	Modern Electronic Engineering, Applied Electromagnetics
• Title of qualification awarded	Master Degree in Electronic Engineering

PRINCIPAL POSITIONS

• Dates (2024 – today)	
• Name and address of employer	Sapienza, University of Rome (Italy)
• Type of business or sector	02/PHYS-01 – PHYS-01/A
• Occupation or position held	**Full Professor**
• Main activities and responsibilities	Design of RF devices, Medical accelerators, Plasma based accelerators

• Dates (2018 – 2024)	
• Name and address of employer	Sapienza, University of Rome (Italy)
• Type of business or sector	02/A1 – Fis01

• Occupation or position held	Associate Professor
• Main activities and responsibilities	Design of RF devices, Medical accelerators, Plasma based accelerators
• Dates (2006 – 2018)	
• Name and address of employer	Sapienza, University of Rome (Italy)
• Type of business or sector	02/A1 – Fis01
• Occupation or position held	Assistant Professor
• Main activities and responsibilities	THz radiation Sources, Physics of High brightness beam, Beam commissioning
• Dates (2002 – 2006)	
• Name and address of employer	Sapienza, University of Rome (Italy)
• Type of business or sector	02/A1 – Fis01
• Occupation or position held	Researcher
• Main activities and responsibilities	Medical applications, Hadroterapy, Post-acceleration of Plasma generated protons
• Dates (2001 – 2002)	
• Name and address of employer	CERN, European Organization for Nuclear Research (Genève, Switzerland)
• Type of business or sector	
• Occupation or position held	Research Fellowship
• Main activities and responsibilities	Microwave measurements
• Dates (1999 – 2001)	
• Name and address of employer	CERN, European Organization for Nuclear Research (Genève, Switzerland)
• Type of business or sector	
• Occupation or position held	Doctoral Student
• Main activities and responsibilities	Beam wall interaction in the LHC liner
• Dates (1997 – 1998)	
• Name and address of employer	CERN, European Organization for Nuclear Research (Genève, Switzerland)
• Type of business or sector	
• Occupation or position held	Technical Student
• Main activities and responsibilities	Beam coupling impedance of LHC beam screen pumping slots

ADDITIONAL POSITIONS

• Dates (2021 – today)	
• Name and address of employer	Sapienza, University of Rome (Italy)
• Type of business or sector	
• Occupation or position held	Member of the Professor Board of Mechanical Engineering
• Main activities and responsibilities	Professor of General Physics
• Dates (2016 – today)	
• Name and address of employer	Sapienza, University of Rome (Italy)
• Type of business or sector	
• Occupation or position held	Member of the Professor Board of PhD Course in Engineering and Applied Science for Energy and Industry
• Main activities and responsibilities	
• Dates (2011 – today)	
• Name and address of employer	Sapienza, University of Rome (Italy)
• Type of business or sector	
• Occupation or position held	Member of the Professor Board of Electronic Engineering
• Main activities and responsibilities	Professor of Microwave measurement laboratory and Accelerator Physics
• Dates (2008 – today)	
• Name and address of employer	INFN, Istituto Nazionale di Fisica Nucleare
• Type of business or sector	

• Occupation or position held — Research appointment renewed yearly on particle accelerators activities
• Main activities and responsibilities — R&D of novel particle accelerators, THz radiation sources and manipulation

• Dates (2016 – 2021)
• Name and address of employer — Sapienza, University of Rome (Italy)
• Type of business or sector
• Occupation or position held — Member of the Professor Board of Electrical Engineering
• Main activities and responsibilities — Professor of General Physics

VISITING POSITIONS

• Dates (2019 – today)
• Name and address of employer — CERN, European Organization for Nuclear Research (Genève, Switzerland)
• Type of business or sector
• Occupation or position held — Cooperation Associate (COAS)
• Main activities and responsibilities — Coupling impedance measurements, Accelerator devices optimization

• Dates (2002 – 2014) — Various, non-continuative appointments of about 1 month of duration
• Name and address of employer — CERN, European Organization for Nuclear Research (Genève, Switzerland)
• Type of business or sector
• Occupation or position held — Visiting Scientist
• Main activities and responsibilities — Coupling Impedance measurements on LHC device

TEACHING

• Current
General Physics II (Electromagnetics) for BD in Mechanical Engineering (2021 – today)
Multidisciplinary Laboratory of Electronics – RF measurement module for MD in Electronic Engineering (2014 - today)
Accelerator Physics and Relativistic Electrodynamics for MD in Electronic Engineering (2017 – today)
Course on RF Engineering at the “Science and technology of Particle accelerators” at the Joint Universities Accelerator School (JUAS) of the European Scientific Institute (2017-today)

• Past
General Physics I (Mechanics and thermodynamics) and General Physics II (Electromagnetics) for BD in Transportation Engineering (2002)
General Physics II (Electromagnetics) for BD in Environmental Engineering (2003)
Laboratory of Experimental physics for BD of Aerospace Engineering (2004 – 2009)
High Frequency measurement laboratory for MD in Electronic Engineering (2011 - 2013)

GRANTS & PROJECTS

• Dates (2022 – today) — INFN – Fifth National Research Committee
• Name of the project — FLASH radiotherapy with high dose rate particle beams
• Description — Responsible of Work-package
• Total grant — 120k€

• Dates (2019 – today) — INFN – Fifth National Research Committee
• Name of the project — Free electron laser (FEL) radiation from plasma accelerated (PWFA) electron beams
• Description — Responsible of Unit
• Total grant — 40k€

• Dates (2018) — Sapienza, Research Project
• Name of the project — Beam energy measurement in advanced linear particle accelerators for electrons
• Description — PI
• Total grant — 13k€

• Dates (2017) — Sapienza, Research Project

• Name of the project	Advanced beam position monitors for the Compton Gamma Source of the Extreme Light Infrastructure
• Description	PI
• Total grant	38k€
• Dates (2014 – 2016)	INFN – Fifth National Research Committee
• Name of the project	Plasma based acceleration at SPARC-LAB
• Description	Responsible of Unit
• Total grant	40k€
• Dates (2013 – 2016)	INFN – Fifth National Research Committee
• Name of the project	European FEL Design Study (EuroFEL project)
• Description	Responsible of Unit
• Total grant	300k€
• Dates (2012 – 2015)	RBFR12NK5K_002 - FIRB-Futuro in Ricerca 2012
• Name of the project	Generation of high brightness electron beams from plasma-based accelerators
• Description	Responsible of Unit
• Total grant	180k€

SELECTED PUBLICATIONS

(out of more than **260** journal publications)

- R. Pompili et al., "Energy spread minimization in a beam-driven plasma wakefield accelerator", Nature Physics 2021
  DOI: 10.1038/s41567-020-01116-9
- D.B. Durham, et al., "Plasmonic lenses for tunable ultrafast electron emitters at the nanoscale", Physical Review Applied 2019
  DOI: 10.1103/PhysRevApplied.12.054057
- V. Shpakov, et al., "Longitudinal phase-space manipulation with beam-driven plasma wakefields. Physical Review Letters 2019
  DOI: 10.1103/PhysRevLett.122.114801
- R. Pompili, et al, "Focusing of high-brightness electron beams with active-plasma lenses" Physical Review Letters 2018.
  DOI: 10.1103/PhysRevLett.121.174801
- N. Biancacci, et al, "Impedance simulations and measurements on the LHC collimators with embedded beam position monitors". Physical Review. Accelerators and Beams 2017
  DOI: 10.1103/PhysRevAccelBeams.20.011003
- F. Giorgianni et al., "Strong nonlinear terahertz response induced by Dirac surface states in Bi2Se3 topological insulator", Nature Communications 2016
  DOI:10.1038/ncomms11421
- A. Petralia, et al. "Two-Color Radiation Generated in a Seeded Free-Electron Laser with Two Electron Beams" Physical Review Letters 2015.
  DOI: 10.1103/PhysRevLett.115.014801
- M. Ferrario et al., "Experimental demonstration of emittance compensation with velocity bunching", Physical Review Letters 2010
  DOI: 10.1103/PhysRevLett.104.054801
- A. Mostacci, et al, "Beam emittance evolution measurements in a rf photoinjector", Physical Review Special Topics. Accelerators and Beams 2008
  DOI: 10.1103/physrevstab.11.032801
- A. Mostacci, et al, "Analysis methodology of movable emittance-meter measurements for low energy electron beams", Review of Scientific Instruments 2008,
  DOI: 10.1063/1.2835715
- A. Mostacci, "Image currents in azimuthally inhomogeneous metallic beam pipes". Physical Review Special Topics. Accelerators And Beams, 2005.
  DOI: 10.1103/PhysRevSTAB.8.084402

- DISPOSITIVO PER IL TRATTAMENTO RADIOTERAPICO DI MALATI ONCOLOGICI, Italian patent for an electron linear accelerator for ultra-high dose rate cancer treatment based on Flash Radiation Therapy, 2019.

PERSONAL SKILLS AND COMPETENCES

Acquired in the course of life and career but not necessarily covered by formal certificates and diplomas.

MOTHER TONGUE — **ITALIAN**

OTHER LANGUAGES

ENGLISH

• Reading skills	excellent
• Writing skills	excellent
• Verbal skills	excellent

FRENCH

• Reading skills	basic
• Writing skills	basic
• Verbal skills	basic

ORGANIZATIONAL SKILLS AND COMPETENCES

Coordination and administration of people, projects and budgets; at work, in voluntary work.

Coordination of the activity in the Accelerator Laboratory at the SBAI Department of Sapienza University of Rome (2002-today)

Coordination of Work Package on “Membership extension strategies” (WP6) of the project “Compact European Plasma Accelerator with superior beam quality – Preparatory Phase” (EUPRAXIA-PP); Horizon Europe Grant Agreement N. 101079773. Member of the Collaboration Board and Sapienza representative. (2022-today)

Steering Committee of the project “Compact European Plasma Accelerator with superior beam quality – Doctoral Network” (EUPRAXIA-DN); Horizon Europe Grant Agreement N. 101073480. Member of the Collaboration Board and Sapienza representative (2022-today)

Coordination of Work Package on “Accelerator prototyping and experiments at Test facilities” (WP12) of the project “Compact European Plasma Accelerator with superior beam quality” (EUPRAXIA); Horizon 2020 grant agreement No 653782. Member of the Collaboration Board and Sapienza representative. (2015-2020).

Coordination of diagnostics group for the linear accelerator of the Compton Gamma Source being built in the Extreme Light Infrastructure for Nuclear Physics (ELI-NP), Magruele (Romania) (2015-2018)

Coordination of the Work Package "Accelerators: Novel compact particle sources" (WP6) of the project “Cluster of Research Infrastructures for Synergies in Physics” (CRISP) in the framework of FP7- INFRASTRUCTURES-2011-1 (2012-2014)

Coordination of the data analysis of all the experiments executed on the SPARC photo injector at the LNF-INFN (2006-2013)

ADDITIONAL INFORMATION

References

Prof. Mauro Migliorati, Sapienza, University of Rome
I. Papaphilipou, CERN, Geneve

According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016,
I hereby express my consent to process and use my data provided in this CV.

Rome, 31.10.2025
Andrea Mostacci
Signature

Research Activity highlights

Keywords	Brief Description
Circular accelerators, Coupling impedance,	The electromagnetic interaction between the beam in a particle accelerator and its surrounding (beam pipe) in a circular accelerator is studied with the coupling impedance. Such interaction can lead to energy losses (longitudinal impedance) or transverse instability (transverse impedance). Applying Electromagnetic theory, A. Mostacci studied several potential impedance sources relevant for modern particle accelerators.
LHC liner	The beam pipe foreseen for the Large Hadron Collider (LHC) is rather unconventional. To shield the magnets cold bore from the synchrotron radiation emitted by 7 TeV protons, a beam screen (the so called "liner") has been introduced practically along all the machine. The design of the liner is a compromise among the beam stability issues, the vacuum requirements, the heat load on the cold bore, the electron cloud effects and the realization constraints. Three main potential sources of beam energy losses in the actual LHC liner are important, namely the interaction with the pumping holes, the (saw tooth) surface corrugation and the effect of an azimuthally inhomogeneous metallic beam pipe.
LHC liner Pumping holes	The pumping slots in the beam screen couple the inside of the beam pipe with the external coaxial region, leading to RF power flow with possibly power dissipation on the cold bore. Interference effects between the slots have been studied in details and analytical estimates for the power dissipated in the cold bore as a function of the slot dimensions (hole width and wall thickness) has been given. For the actual slots dimensions, the losses were still within the safe limits. Such studies are being revisited in the context the the Future Circular Collider (FCC) studies where the availability of analytical formulae can simplify the design phase.
LHC liner Surface roughness	The artificial roughness (saw tooth corrugation) of the surface foreseen in the final design of the LHC beam pipe allows the propagation of surface waves synchronous with the beam and thus potentially dangerous for its stability. Using a field matching technique and assuming a periodically rough surface, the frequency of such waves is found to be very high (out of the relevant bunch spectrum): it scales with the inverse of the square root of the depth of the corrugation, that is in the range of microns. The potential dangers have been investigated for the nominal LHC bunch intensity.
LHC liner azimuthally inhomogeneous metallic beam pipe	Based on the Green's function approach, the field excited by a beam traveling in a pipe whose resistivity varies with the azimuth (but is constant in the z-axis direction) can be found (semi)analytically for an ultra-relativistic beam by using some approximated boundary conditions (for conductors). Even at relatively low frequencies (in the MHz range) it was found that the image currents do not avoid the low conductivity region (as you would expect in the limit of static solutions), thus implying potentially high power losses due to the longitudinal welding in the LHC beam screen. Infact, the inner part of the beam screen is covered with a layer of copper (very good conductor) but the weldings have approximately the resistivity of stainless steel (bad conductor) which gives a big contribution to the losses. Numerical studies using the conventional electromagnetic CAD code confirmed such a conclusion. A prototype has been designed and built to experimentally verify the azimuthal distribution of the image currents, through very accurate Q-factor measurements in a coaxial resonator. The measured data confirmed the theoretical predictions.
Impedance studies	The theoretical environment built to study the LHC liner impedance issues has been subsequently applied to similar problem to give estimations of the impedance contribution in more complicated devices in order to explain unexpected phenomena (e.g. heat load) suffered by the beam, particularly relevant in cryogenic machines.
RF devices, bead pull measurement,	In the “Accelerators” laboratory at the SBAI department, A. Mostacci designed, built and maintained a test bench to measure electromagnetic field inside closed RF

	structures (so called “bead-pull” method). Several devices installed in SPARC, the high brightness LINear Accelerator (linac) of Laboratori Nazionali di Frascati (LNF), have been tested in the laboratory. Those measurements were calibrated to measure not only the field shape, but also the accelerating efficiency of the structure. Typical RF devices measured are deflector, electron gun and accelerating sections in the 3 to 12 GHz frequency range. The tuning procedure for 6GHz accelerating structures built at LNF have been defined and applied for the first time in the previously discussed test bench. The laboratory is equipped also with codes for electromagnetic CAD used both for designing novel devices and for validating measurements on prototypes. A. Mostacci studied also on the bead-pull measurement theory for non-conventional RF structures.
Coupling impedance, bench measurements, coaxial wire method	Bench measurements nowadays represent an important tool to estimate the coupling impedance of any particle accelerator device. The well-known technique based on the coaxial wire method allows to excite in the device under test a field like the one generated by an ultra-relativistic point charge. The field of a relativistic point charge in the free space (or in a perfectly conducting beam pipe) is a Transverse Electric Magnetic (TEM) wave, namely it has only components transverse to the propagation direction. The amplitude scales inversely with the distance from the propagation axis and phase velocity is equal to the speed of light. The fundamental mode of a coaxial wave guide is a TEM wave as well, with the same amplitude dependence and the same propagation constant. Therefore, the excitation due to a relativistic beam in a given Device Under Test (DUT) can be "simulated" by exciting a TEM field by means of a conductor placed along the axis of the structure. With the coaxial wire method, A. Mostacci measured the coupling impedance of many particle accelerator devices of interest of CERN machines such as LHC and its injectors. A. Mostacci also performed beam experiments at CERN to compare bench measurement with direct beam measurement on the same devices. The coaxial line approach has also been used to bench measured the effect of coating in the secondary emission yield, relevant for LHC electron cloud issues. More recently the new generation of LHC collimators has been bench measured in order to estimate the coupling impedance and look for possible trapped modes in the moving jaws.
SPARC, machine measurements Physics of high brightness beam	Since 2006, A. Mostacci joined SPARC commissioning and operation. SPARC is a high brightness linear accelerator initially conceived to drive proof-of-principle experiments in the generation of radiation with Free Electron Laser (FEL). Nowadays the SPARC accelerator has been upgraded to SPARC_LAB with the installation of multi TW class lasers, allowing world-class, ground breaking experiments in accelerator and plasma physics as well as interdisciplinary research. Following the time line of the SPARC_LAB upgrades, the activity can be roughly divided in research on physics of high brightness electron beams, on FEL innovative schemes, on the generation of THz radiation, on novel plasma-based particle acceleration techniques and on Compton effect based radiation sources. Concerning the physics of high brightness electron beam, SPARC measured for the first time the emittance oscillation of beams generated by RF photocathodes, assessing the working point used world-wide in all the FELs based on RF guns. Such result has been possible due to a carefully conducted experiments and data analysis. In order to longitudinally compress the electron beam (to increase the bunch current), SPARC introduced and demonstrated the low energy compression (namely “velocity bunching”) properly tuning low energy focusing solenoids, for the first time used there. Such velocity bunched beam exhibit non-negligible energy spread that must be considered in beam measurements or exploited in to produce radiation with non-conventional FEL configurations. SPARC high brightness beams are also used to propose and demonstrate novel concepts in beam diagnostics or medical applications in electron-based radiotherapy.

Free Electron Laser	SPARC contributed to develop and test innovative ideas on Free Electron Laser schemes which have been afterword applied in bigger FEL facilities; such results have possible also to extensive benchmarking of code against experiments and innovative diagnostics. For instance, SPARC introduced the undulator tapering to compensate energy spread or demonstrated the generation of a super radiant pulse in the long radiator of a single stage cascaded FEL, by seeding the modulator with an external laser. Seeded FELs can operate either in the amplifier "direct seeding" scheme, or in the high gain harmonic generation configuration, where the seed in a first undulator (modulator) is used to induce an energy-density modulation in the electron beam longitudinal phase space. This bunched beam then emits a higher order harmonic in a following undulator (radiator). This scheme can be repeated in a multiple stage cascade of modulators and radiators, extending the operation wavelength toward a range where seed sources are not available. The versatility of the SPARC linac allowed also to send a train of bunches in the FEL undulator, resulting in a two colour FEL radiation time modulated FEL radiation and seeded two colours radiation. Also, this scheme was pioneered at SPARC and it is now used in several other laboratories for pump-probe FEL experiments.
THz radiation	The generation of THz radiation at SPARC relies on the usage of sub-ps high brightness electron bunches when a broadband radiation is needed, while longitudinally modulated electron beams allow for tunable narrow-band radiation. The generation is quite efficient since the velocity bunching imposes a longitudinal phase space distortion, leading to asymmetric current profiles with sharp rising charge distribution at the bunch head; therefore, high frequency (THz) radiation can be emitted if the bunch goes across a radiator (coherent transition radiation). The resulting THz radiation is more intense than other sources and it has been used for advanced material studies.
Laser-plasma accelerators, CRISP project, FIRB project, Eupraxia project	Plasma-based accelerators represent the new frontier for the acceleration of high quality, i.e. high brightness, electron beams because of their capability to sustain extremely large accelerating gradients. In conventional Radio-Frequency (RF) linear accelerators, accelerating gradients are currently limited to ~100 MV/m, mainly due to breakdown occurring on the metallic walls of the devices. Ionized plasmas, however, can sustain electron plasma waves with electric fields three orders of magnitude higher than those achievable with actual RF technologies. Moreover, the accelerating field strength is tunable by adjusting the plasma density. Even though the principle of plasma-based acceleration has been proven by several groups, the so accelerated beams still suffer from large angular divergence, large energy spread, poor reproducibility, which prevent their use as an alternative to conventional RF accelerators which typically provide stable and high quality electron beams. A possible solution is to use innovative transport lines based on conventional technology, such quadrupole or solenoid based transport lines arranged in a clever way. Another approach towards plasma-accelerated high-brightness electron beams relies on the use of the plasma only as the active media, injecting electrons into a pre-formed plasma channel. A first scheme consists in injecting a witness electron bunch in a plasma where the plasma wave is excited by a high-power laser pulse, i.e. external injection in a Laser Wake Field Accelerator (LWFA). The second scheme relies on the induction of coherent plasma oscillations with multiple electron bunches, that is a resonant Plasma Wake Field Accelerator (PWFA). Such idea relies on using a comb beam, i.e. a train of equidistant bunches, to increase the accelerating gradient. A scheme to produce comb-like beams was conceived at Laboratori Nazionali di Frascati and successfully tested at SPARC for the first time. The additional benefit of resonant PWFA relies on the use of lower charge bunches in the train with respect to traditional PWFA, with the advantage of a better control of acceleration and transport. The proof of principle experiments of resonant wake field acceleration triggered improvements in the plasma generation schemes, in active plasma lens for symmetric beam focusing, in the SPARC synchronisation, in standard bunch measurement as

	well as in non-intercepting beam diagnostics; also, the betatron radiation emitted by electron moving in the plamsa channel can be used. Efforts are ongoing also in measurement the plasma channel properties with spectroscopic and opto-acoustic methods. Moreover, to support the plasma source commissioning, simplified (but accurate) models are necessary to properly choose the machine working point. Those models, before being used, must be assessed against accurate Particle In Cell simulation.
Compton Sources ELI-NP	High brightness linacs are used also in Gamma ray source based on Compton back scattering between electron and counter-propagating laser pulses. A possible design has been proposed investigating the bam dynamics as well as the issues due to the necessity of multi-bunch operation to increase the luminosity. A single bunch, proof of principle experiment has been done at SPARC_LAB. Even if in a smaller sized design, the Gamma Beam Source is being built in Romania under the ELI-NP project supported by EU. One of the most relevant issues is the need of multi-bunch, high charge beams affecting the design and the operation of accelerating structures and diagnostics.
Medical applications FLASH electron accelerators	Radiation Therapy is currently the most utilized technique for the treatment of tumours by means of high-energy beams, either particles (such as electrons, protons and neutrons) or X/gamma rays, depending on the type, size and depth of the cancer mass. Radiation therapy has in general fulfilled the main requirement of targeting thus damaging the malignant cells and sparing the healthy tissues as best as possible. Recently, it has been experimentally demonstrated that ultra-high dose bursts of electrons and X-ray beams augment the differential response between healthy and tumour tissues. This beneficial response is referred to as the FLASH effect. A compact S-band linear accelerator (named ElectronFlash) for FLASH radiotherapy has been conceived, design and realised in collaboration with S.I.T. ElectronFlash is fabricated and tuned by following low-cost procedures appropriate for industries and it is mounted on a remote-controlled and light-weight robot system that is perfectly suitable for even small operating rooms. The work done includes RF and beam dynamics design of ElectronFlash as well as the commissioning and high-power RF tests. The results of the dosimetry measurements for the specific application of intra-operative electron radio-therapy (IOeRT) are extremely encouraging. ElectronFlash has been specifically designed dedicated to ultra-high dose rate experiments in order to consolidate the promising radiobiological results given by the FLASH effect; ElectronFlash is now installed in Institut Curie (in Paris). Currently, A. Mostacci and his team are facing the next step in this research, i.e. the design of high-gradient RF cavities (e.g. C-band) to provide very High Energy Electrons (VHEE) suitable for FLASH radiotherapy.
Medical applications Hadroterapy, post-acceleration	Hadroterapy protons are typically produced with Radio Frequency quadrupoles and then delivered to the patient with circular accelerators (even if recently hospital proton linacs are under construction). Few tens of MeV protons can also be produced with high energy laser pulse hitting a target; such scheme has interesting feature in terms of beam properties, versatility and compactness. In order to improve the beam properties up to medical requirements proposed a post acceleration scheme based on modified hospital proton linac cavities.
Montecarlo, FLUKA	A. Mostacci has been involved in the design of particle detectors for biomedicine, joining the research on Treatment Planning Systems (TPS) for tumour hadroterapy with carbon ions using Monte Carlo techniques (FLUKA code); he was involved in the FLUKA collaboration on the optics module in order to calibrate the simulations against measurements on Compton chamber for Single Photon Emission Computed Tomography.

Manuela Allegri

Presidenza INFN
Piazza dei Caprettari70
00186 Roma
06 6840031
manuela.allegri@presid.infn.it

Dipendente presso la Presidenza INFN dal 1994
Collaboratore di Amministrazione V liv. 2°posizione ecomonica

Attività lavorativa (Coll. Amm. V liv. – 2° posizione economica)

2014 – 1 GEN. 2024

Responsabilità di Segreteria degli Organi Direttivi (riunioni Giunta Esecutiva e Consiglio Direttivo):

- organizzazione e raccolta documentazione per le riunioni informali della Giunta (pre-Giunta)
- convocazione, formulazione dell'ordine del giorno e preparazione della documentazione in formato elettronico e cartaceo per riunioni formali di Giunta e Consiglio Direttivo
- segretario verbalizzatore riunioni GE e CD - stesura verbali delle riunioni
- creazione e aggiornamento di apposite bacheche su sito web della Presidenza per consultazione atti deliberativi, verbali riunioni ecc.
- numerazione delibere e pubblicazione su database ufficiale dell'INFN
- Istruttoria per la nomina dei Componenti degli Organi Direttivi

Assistenza al Presidente e ai Membri di Giunta Esecutiva nelle attività connesse alle loro funzioni:

- gestione della corrispondenza e delle relazioni della Giunta
- gestione agenda della Giunta (pianificazioni meeting e appuntamenti)
- istruttoria pratiche

Convegni organizzati dalla Presidenza: *(Piani Triennali, What Next, European Strategy a Roma, Riunioni Comitati Internazionali ecc.)*:

- definizione location e contatti con fornitori
- organizzazione logistica per soggiorno e trasporti dei partecipanti e assistenza on-site
- creazione e gestione di siti web per programmazione dei Convegni con DataBase dinamico dedicati alla registrazione dei partecipanti agli eventi

Aggiornamento sito web della Presidenza

- aggiornamento puntuale documentazione sul sito e delle informazioni inerenti al Management dell'Isitituto
- manutenzione e aggiornamento mailing list del Management

Competenze

• Competenze trasversali delle attività all'interno del Servizio di Presidenza
• Uso esperto dei pacchetti applicativi Microsoft Office • Uso esperto applicativi CMS per gestione contenuti WEB: Joomla, INDICO • Uso esperto piattaforme di videoconferenza per organizzazione riunioni: Webex, Zoom, Teams ecc.• Uso esperto applicativi di gestione documentale dell'Istituto (Alfresco, Protocollo MDM, Pandora, GODIVA ecc.)
• Conoscenza lingua inglese: liv. B2.2
• Ottima capacità di problem solving e lavoro di squadra, capacità di ascolto e mediazione • Ottima capacità di svolgere incarichi in piena autonomia, assumendo responsabilità, gestione della pressione

Attività lavorativa presso INFN

- dal 1999 ad oggi: contratto a tempo indeterminato presso la Presidenza INFN
- 1995-1999: contratti a tempo determinato pluriennali presso la Presidenza INFN
- 1994-1995: contratti a tempo determinato trimestrali presso la Presidenza INFN
- 1992: contratto a tempo determinato trimestrale presso la Sezione INFN Roma

Istruzione e formazione

Principali corsi di Formazione effettuati nel periodo del livello di appartenenza:

2024
Corso Wordpress 6.0 (Frascati, 17-18-19-24-25 giugno 2024)

2019
Laboratorio scrittura delibere e verbali (Roma, 27-28 maggio 2019)

2019
Corso Aggiornamento per Assistente di direzione – consolidamento del ruolo (LNF, 5-6 marzo 2019)

2017
Master in cerimoniale delle pubbliche amministrazioni, delle aziende e degli eventi (Roma, 1-2-3-16-17 marzo 2017)

2015
Corso Joomla Advanced (LNF, 6-7-8-9-10 luglio 2015)

2014
Metodi di gestione del lavoro amministrativo: lavorare in squadra (Lecce, 8-9 ottobre 2014)

1991
Diploma di maturità scientifica presso il Liceo Scientifico Plinio Seniore – Roma

FORMATO EUROPEO PER IL CURRICULUM VITAE

INFORMAZIONI PERSONALI

Nome	ALESSIA CAPITANI
Indirizzo Residenza	
Telefono	06 6840031 (ufficio)
E-mail	alessia.capitani@presid.infn.it
Nazionalità	ITALIANA
Data di nascita	

ESPERIENZA LAVORATIVA

• Aprile 2008 ad oggi	Dipendente a tempo indeterminato
• Nome e indirizzo del datore di lavoro	Istituto Nazionale di Fisica Nucleare – Servizio di Presidenza
• Tipo di azienda o settore	Ente Pubblico di Ricerca
• Tipo di impiego	Collaboratore di Amministrazione – V Liv.
• Principali mansioni e responsabilità	Segreteria Particolare del Presidente Assistenza ai Componenti della Giunta Esecutiva nelle attività connesse alle loro funzioni Organizzazione eventi e meeting promossi dalla Presidenza Gestione commissioni esaminatrici bandi concorso e procedure selettive Gestione contatti esterni con istituzioni nazionali e internazionali Supporto di segreteria a riunioni di comitati nazionali e internazionali Segreteria commissioni di concorso per la selezione di personale da assumere presso la Presidenza
• Altri incarichi	Referente per la formazione del Personale del Servizio di Presidenza e Ufficio Comunicazione Referente delle Strutture INFN presenti nella Regione Lazio per il Progetto INPS Valore PA Componente Gruppo di Lavoro per la valutazione dell'attività formativa INFN (Valutazione corsi nazionali e redazione Report annuale - Valutazione corsi locali come previsto dal Piano della Performance INFN 2020-2022) Componente Gruppo di Lavoro con il compito di individuare percorsi e metodologie per dotare l'Ente di regole uniformi in materia di Cerimoniale (Disposizione Presidenziale n. 19774 del 12 marzo 2018)

ISTRUZIONE E FORMAZIONE

• Giugno 1992	Diploma di Maturità Classica
• Nome e tipo di istituto di istruzione	Liceo Ginnasio Statale Dante Alighieri di Roma
5-6 Marzo 2019	Corso di formazione per Assistenti di Direzione -CEGOS
26 marzo -13 giugno 2018	Corso perfezionamento "Team building, creatività e risoluzione dei problemi -I livello" -LUISS Business School
Maggio 2017 – Febbraio 2018	Corso di Lingua Inglese – Livello Livello B2.2 - The British Institute of Rome conseguito con valutazione: ottimo
Marzo 2017	Master in Cerimoniale delle Pubbliche Amministrazioni, delle Aziende e degli Eventi-CEIDA-conseguito con profitto
Settembre-Dicembre 2014	Corso "La valutazione della Formazione" - 18 ore - Scuola Nazionale dell'Amministrazione-conseguito con elaborazione di Project Work

CAPACITÀ E COMPETENZE PERSONALI

MADRELINGUA	ITALIANO
ALTRE LINGUA	
	INGLESE
• Capacità di lettura	BUONO
• Capacità di scrittura	BUONO
• Capacità di espressione orale	BUONO
CAPACITÀ E COMPETENZE RELAZIONALI	Disponibilità ai rapporti interpersonali, naturale propensione alla collaborazione in occasione di lavori di gruppo, buona capacità di negoziazione
CAPACITÀ E COMPETENZE ORGANIZZATIVE	Buona capacità di organizzazione e gestione di gruppi di lavoro, orientamento ai risultati, spirito di iniziativa, capacità di sintesi nella stesura di rapporti e relazioni, analisi e interpretazione di elementi utili alla identificazione di soluzioni efficaci, capacità di innovazione tecnologica e funzionale, competenze tecnico-professionali sviluppate nell'ambito dell'attività lavorativa svolta.
CAPACITÀ E COMPETENZE TECNICHE *Con computer, attrezzature specifiche, macchinari, ecc.*	Buona padronanza nell'utilizzo dei principali strumenti Microsoft Office, Joomla e Indico (creazione e gestione siti web)