

INFORMAZIONI PERSONALI Fausta Candiglioti

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Sesso Femminile | Data di nascita:

Nazionalità Italiana

Codice Fiscale -----

ESPERIENZE PROFESSIONALI

Istituto Nazionale di Fisica Nucleare (INFN) – Sezione di Napoli

da ottobre 1995 ad oggi Responsabile Amministrativo

da febbraio 1984 a ottobre 1995 Collaboratore di Amministrazione

Istituto Nazionale di Previdenza Sociale (INPS) – Sede di Milano

da gennaio 1983 a gennaio 1984 Assistente Amministrativo - Ufficio Riscatti

TITOLI DI STUDIO

Diploma di “Esperto in appalti Pubblici” voto 100/100

da gennaio 2012 a dicembre 2012 Presidenza del Consiglio dei Ministri – Scuola Nazionale dell’Amministrazione

Quattro corsi specialistici e di approfondimento tematico per un totale di 276 ore. Esame di verifica finale per ogni singolo corso. Conseguimento diploma a seguito della discussione di una tesi dinanzi ad una Commissione di esperti designata dalla Scuola.

Laurea Triennale in Scienze Politiche dell’Amministrazione voto 93/110

da settembre 2004 a ottobre 2008 Università degli studi di Napoli “Federico II”, Napoli

Diritto, Economia, Storia, Lingue Straniere, Sociologia, Statistica, Psicologia, Scienza Politica.

Licenza Liceale Classica

da settembre 1972 al luglio 1977 Liceo Classico Statale “Antonio Genovesi” - Napoli

CORSI DI FORMAZIONE

18 e 19 novembre 2019 Corso di aggiornamento in materia fiscale e tributaria – superato test di verifica finale

30 settembre e 1 ottobre 2019 Trattamento compensi erogati a lavoratori autonomi occasionali, abituali e assimilati a lavoratori dipendenti – superato test di verifica finale

9, 10 e 11 aprile 2019 Rendicontazione e audit dei progetti Horizon 2020 – superato test di verifica finale

20 e 21 novembre 2018 La gestione del procedimento amministrativo riguardante il trattamento di missione in Italia e all'estero per il personale INFN – superato test di verifica finale

11 e 12 luglio 2018 Aggiornamenti in materia fiscale: IVA, IRPEF, imposta di bollo, fattura elettronica – superato test di verifica finale

COMPETENZE PERSONALI

Lingue Buona conoscenza della lingua inglese scritta e parlata
 Conoscenza di base della lingua francese scritta e parlata

- Competenze professionali** In una realtà come quella della sezione di Napoli dell'INFN, con circa 400 ricercatori, tra dipendenti ed associati, impegnati in esperimenti distribuiti sul territorio nazionale ed estero, ho avuto modo di fare un'importante esperienza che ha accresciuto le mie capacità organizzative e di coordinamento, consentendomi di espletare l'impegnativo ruolo di responsabile amministrativo con maggiore competenza. Inoltre, facendo parte di varie commissioni e gruppi di lavoro, ho acquisito una visione più completa del mondo della ricerca e delle sue problematiche.
- Competenze in quanto responsabile del Servizio di Amministrazione:
- Coordinamento delle attività amministrativo-contabili;
 - Gestione dei progetti nazionali ed internazionali;
 - Gestione degli appalti e dei contratti;
 - Collaborazione con il Direttore di Sezione per le attività volte al migliore funzionamento della struttura;
 - Interazione con Enti ed Amministrazioni Pubbliche.
- Partecipazione ad un gran numero di corsi di formazione, sia interni che esterni, in ambito contrattuale, manageriale, amministrativo-contabile, di gestione del personale, di gestione e rendicontazione dei fondi strutturali e dei contratti dell'Unione Europea.
- Partecipazione a svariati gruppi di lavoro, relativi ad esempio alle attività per:
- la definizione e lo sviluppo del sistema informativo attualmente in uso;
 - l'elaborazione delle proposte di semplificazione delle procedure amministrative;
 - la predisposizione/configurazione della nuova piattaforma per le gare telematiche dell'INFN;
 - la revisione del piano dei conti;
 - la predisposizione del disciplinare per il fondo economale.
- Competenze gestionali** Gestione del personale afferente al Servizio di Amministrazione della Sezione di Napoli. Numerose nomine come presidente o membro nelle commissioni esaminatrici di concorsi interni ed esterni.
- Membro della Commissione Nazionale per la Formazione del Personale dell'INFN dal 2006 ad oggi.
 - Membro della Commissione selezionatrice delle candidature dei dipendenti dell'Istituto interessati a far parte del CUG.
 - Responsabile Amministrativo del PON_PIR01_00011 I.Bi.S.Co.
 - Responsabile Amministrativo del PONa3_00007 Nafassy.
 - Responsabile Amministrativo del PONa3_00052 Recas.
 - Responsabile Amministrativo del PON 5077/21 Campus Grid.
 - Responsabile Amministrativo per l'INFN del Centro Regionale di Competenza "Nuove Tecnologie per le attività Produttive".
 - RUP e membro dell'Ufficio del RUP e di Commissioni Giudicatrici per gare sotto e sopra soglia.
 - Financial Officer di diversi progetti finanziati dalla Commissione Europea.
- Competenze tecniche** Elevata competenza nell'utilizzo di portali quali ad esempio:
- per la gestione delle gare informatiche (MePA e ASP della Consip);
 - per la rendicontazione dei progetti erogati dal MUR (Sirio);
 - per la rendicontazione dei progetti erogati dalla regione Campania (Surf).
- Utilizzo quotidiano degli applicativi Office, del DB Oracle e delle Business Intelligence.
- Dati personali** La sottoscritta Fausta Candiglioti, ai sensi del DPR 445/2000, consapevole della responsabilità penale prevista dall' art. 76 del D.P.R. 445/2000 per le ipotesi di falsità in atti e dichiarazioni mendaci ivi indicate, dichiara che tutto quanto riportato nel curriculum vitae corrisponde a verità.
- Autorizzo il trattamento dei miei dati personali ai sensi del Decreto Legislativo 30 giugno 2003, n. 196 "Codice in materia di protezione dei dati personali".

Napoli, 21 dicembre 2020

Fausta Candiglioti



BREVE CURRICULUM

Il sottoscritto Tiziano Ferro dichiara:

- di essere nato a [redacted] e di essere in possesso del Diploma di Maturità Scientifica ottenuto nel 1980;
- di essere dipendente dell'Istituto Nazionale di Fisica Nucleare dal 26 aprile 1983;
- di aver coperto l'incarico di Responsabile Amministrativo della Sezione di Bologna dal 1 giugno 1995 al 31 agosto 2013;
- di aver coperto l'incarico di Responsabile Amministrativo dei Servizi di Amministrazione accorpati, della Sezione di Bologna e del CNAF dal 1 settembre 2013 al 31 gennaio 2015;
- di coprire l'incarico di Responsabile Amministrativo dei Laboratori Nazionali di Frascati dal 1 febbraio 2015;
- di essere stato membro del Consiglio Direttivo dell'INFN come Rappresentante Nazionale del Personale Tecnico, Tecnologo ed Amministrativo dal 15 giugno 1999 al 31 agosto 2005;
- di essere in possesso del Patentino Europeo Informatico ECDL;
- di essere stato nominato come componente di varie Commissioni di Gara per l'acquisto di beni e servizi e Commissioni di Concorso per selezione di personale amministrativo per varie Strutture dell'INFN.

In fede

Tiziano Ferro

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Curriculum vitae et studiorum of Vincenzo Patera

Education – Academic Achievements

- 2018 Full Professor at University of Roma “La Sapienza”
- 2018 Appointed with the Italian ASN National scientific qualification for FIS/07- 01/D1 scientific sector (Applied physics)
- 2014 Appointed with the Italian ASN National scientific qualification for FIS/01- 01/A2 scientific sector (Particle Physics)
- 2010-2018 Associate Professor at “Base and Applied Science for Engineering” Department of Rome University “La Sapienza”
- 1999-2010 Associate Professor at Energetics Department of Rome University “La Sapienza”
- 1992-1999 Permanent Researcher at Energetics Department of Rome University "La Sapienza"
- 1992 Visiting Researcher at California Institute of Technology.
- 1990-1992 Permanent Researcher at Istituto Nazionale di Fisica Nucleare (INFN) at Frascati National Laboratory (LNF)
- 1988-1989 Research grant of INFN at Frascati National Laboratory
- 1987 Degree in Elementary Particle Physics: 110/110 cum laude at Rome University "La Sapienza"

Scientific Responsibilities

- 2019-now Spokeperson of the International Biophysics Collaboration (more than 200 researchers from 20 Countries)
- 2019-now Deputy Director of the Specialty School of Medical Physics at the University of Rome “La Sapienza”
- 2018-2020 PI of the Flagship Project (Progetto Premiale) of the MIUR (Italian Ministry of Education, University and Research) for the Centro Fermi Research Institute: “SPARE: Space Radiation Shielding”
- 2016-2021 Spokesperson of the FOOT (FragmentatiON Of Target) international collaboration (France, Germany, Italy, Japan) funded by CSN3
- 2016-2020 Coordinator of the Working Package 5 “Charged detector for Imaging in Particle Therapy” of the European Nuclear Science and Applications Research (ENSAR-2) - MediNet project.
- 2014-2016 Principal Investigator (PI) of the NCS@HIT experiment at Heidelberg Ion-Beam Therapy Center (HIT) funded by the Union of Light Ion Centers in Europe (ULICE) Program for the study of the beam fragmentation in Particle Therapy
- 2012-2015 PI of the Flagship Project (Progetto Premiale) of the MIUR (Italian Ministry of Education, University and Research) for the Centro Fermi Research Institute: “Multiple source, real-time Imaging for Hadrontherapy”
- 2012-2015 PI at “La Sapienza” University of Rome of the PRIN project (Research Project of National Relevance) INSIDE: “Innovative Solution of Imaging and Dosimetry in Hadrontherapy”
- 2012-2016 Local coordinator of the INFN experiments RDH (R&D in Hadrontherapy) and IRPT (Innovation in Radio and Particle Therapy) of CSN5 at Roma1 section
- 2012-now PI of the project of the Centro Fermi Research Institute: “Innovative non invasive imaging of dose release in hadrontherapy”
- 2010-2015 Spokesperson of the FIRST-S361 (Fragmentation of Ions Relevant for Space and Therapy) international collaboration at GSI laboratory (Darmstadt, Germany) funded by CSN5 within RDH experiment.

- 2008-2012 Local coordinator of the INFN project TPS (Treatment Planning System for hadrontherapy) of CSN5 at Frascati National Laboratory of INFN
- 2006-2009 PI at “La Sapienza” University of Rome of the PRIN project on “Read-out optimization and DAQ electronics development of a scintillating fiber tracking calorimeter”

Memberships

- 2019- Chair of the BIO-PAC selection panel at GSI
- 2019- Chair of the User selection Panel of the Beam Test Facility (BTF) of LNF
- 2018- Users selection Panel of the Beam Test Facility (BTF) of Laboratori Nazionali di Frascati (LNF)
- 2013-now Member of Ph.D. School in Accelerator Physics at Rome University “La Sapienza”
- 2015-now Member of Specialization School in Medical Physics at Rome University “La Sapienza”
- 2012-2014 Member of Users Committee of Laboratori Nazionali del Sud (LNS)
- 2010-2014 Member of Scientific Committee of FLUKA international collaboration
- 2008-now Member of the Policy Board of KLOE-2 (K Long Experiment) experiment at LNF
- 2006-2009 Member of the Panel for TARI (Transnational Access to Research Infrastructure) funds assignment of the European Network of Underground Laboratories
- 2003-2009 Member of Panel for TARI funds assignment of Laboratori Nazionali del Gran Sasso (LNGS) of INFN
- 2002-2005 Member of Executive Committee of the Energetics Department of Rome University “La Sapienza”.
- 2001-2007 Member of the Scientific Committee of LNGS of INFN

Referee/Reviewer activities

- Referee for DFG (German Research Foundation), KWF (Dutch Cancer Society)
- Referee for MIUR (Italian Ministry of Education, University and Research): VQR (Research Evaluation) 2004-2010, VQR 2011-2014, PRIN and FIRB (Futuro In Ricerca) research project, CIVR (Comitato di Indirizzo per la Valutazione della Ricerca), FARE (Framework per l’Attrazione e il Rafforzamento della Ricerca) research projects of MIUR.
- Reviewer of International Scientific Journals : Scientific Reports, Physics in Medicine and Biology, Physica Medica, Medical Physics, Journal of Radiation Research, Nuclear Instruments and Methods, Translational Cancer Research, Frontiers in Oncology, Journal of Radiation Oncology, Advances in Physics, Transaction of Nuclear Science, IEEE Transactions on Radiation and Plasma Medical Sciences
- Editor of the Special Issue of Frontiers in Physics (2020) : Applied Nuclear Physics at Accelerators

Teaching and Training activities

- Teaching activity took place within the Faculty of Engineering of the University of Rome “Sapienza” since 1995 until 2021. V.P. was the professor of courses of General Physics II (Electromagnetism), General Physics I (Mechanics and Thermodynamics), Laboratory of Physics, Modern Physics, Radioprotection, Radiation Physics applied to Medicine.
- Supervisor of more 36 thesis in the faculty of Engineering and of Mathematical, Physical and Natural Science of the Rome University "Sapienza".
- Supervisor of 9 Ph.D. thesis of University of Rome "Sapienza", of University of Rome "Tor Vergata" and University "ROMA 3".
- Supervisor of post-doc contracts funded by University "Sapienza", by INFN and by Centro Fermi Research Institute.

Seminars and Conference Talks in the last five years

- Invited talk: “Nuclear Physics Application in cancer therapy with light ion beams”, Israel-Italy Scientific Workshop in particle accelerator: development and Uses in Medical Application, 2019 Tel Aviv
- Seminar: “Measuring the fragmentation cross section with the FOOT experiment”, CCAP Seminar, Imperial College, 2019 London
- Invited talk: “FOOT: a nuclear physics experiment focused on Particle therapy and Radioprotection in Space”, 3rd Jagellonian Symposium on Fundamental and Applied Subatomic Physics, Krakow, 2019
- Invited talk “Nuclear fragmentation and Particle Therapy”, SPES Workshop , Ferrara, 2019
- Seminar: “Nuclear Interaction and Particle Therapy ”, Trento University, Trento, 2018
- Invited talk “Vision for: beam tracking with prompt secondary ions”, 3rd Heidelberg Symposium on Novel Techniques in Ion Beam Radiotherapy, Heidelberg, 2018
- Seminar: “The FOOT (FragmentatiOn Of Target) experiement”, GSI Biophysics seminar Darmstadt, 2018
- Invited talk: “FOOT FragmentatiOn Of Target experiment” at PRESS: PRoton thErapy research SeminarS, Krakow, 2017
- Talk: “Foot, an experiment for the measurement of the nuclear fragmentation in Particle Therapy”, International Nuclear Physics Conference Adelaide, 2016
- Invited talk: “Novel developments in imaging and dosimetry for Hadrontherapy”, 54th Int. Winter Meeting on Nuclear Physics Bormio, 2016
- Seminar: “Nuclear aspects in hadrontherapy” at Universisty of Tor Vergata, Rome, 2015
- Invited talk: “What are the new challenges in Particle Therapy?”, IFD2015 workshop, Torino, 2015
- Invited talk: “Nuclear Fragmentation and Particle therapy”, 101 Congress of Italian Physics Society, Rome, 2015
- GSI Kolloquium: “Nuclear aspects in hadrontherapy” at GSI, Darmsttdt, 2015

Summary of Research Activities

The research activity has been focused during the first part of the career to fundamental physics. Since his thesis in Elementary Particle Physics and for the following 15 years VP worked to on underground physics at Gran Sasso Laboratory, within the MACRO experiment funded by CNS2 of INFN.

The next career step was driven by the INFN enterprise that built the DAFNE e^+e^- collider in the Frascati Laboratory. At that time VP was an INFN associated to LNF and took the chance to live daily the design, construction, testing and operation (data analysis included) of an high energy experiment at a ϕ factory. This period was thus dedicated to the KLOE experiment of CSN1.

The recent part of the VP scientific career is focused to applied physics, and in particular to the application of the acquired techniques typical of nuclear and particle physics to medicine. In 2008 he worked to the development of software and hardware medical application, with particular attention to particle therapy developments. These projects included all the aspect of a nuclear physics medical application, from the proof of principle to the clinical trial. This activity included participations to TPS, RDH, IRPT and INSIDE experiments funded CSN5 of INFN. In the last 4 years, in order to explore the effect of the nuclear fragmentation of the therapeutic beam on the patient tissue in particle therapy, VP was focused on the realization of the FOOT experiment, funded by the CSN3 of INFN.

Publication Summary: 362 Papers, 8083 Citations, 47 H index (Source Scopus)

A more detailed description of the cited activities is reported below:

a) 2008-2021: Physics applied to particle therapy and to medical imaging

In 2008 V.P. promoted the birth of, and since then coordinates the Applied Radiation Physics Group (ARPG) aiming at developing cutting-edge applications of nuclear and particle physics in the field of medical diagnostics and therapy.

ARPG is made of researchers from "La Sapienza" University of Rome, from Roma1 INFN section and from Centro Fermi Research Institute, and is collaborating with the GSI Laboratory (Darmstadt, Germany), the CNAO Centro Nazionale di Adroterapia Oncologica (Pavia, Italy), the IFJ PAN Proton Therapy Center (Krakow, Poland), the MAASTRO university Hospital (Maastricht, Netherlands) and with the APSS Proton Therapy Center (Trento, Italy). The group has very close collaborations with several sections of INFN (Bo, LNS, LNF, Mi, Na, Pi, RM2, TIFPA, To).

The group main focus are nuclear techniques related with the use of proton and carbon beams for tumor treatment:

- Evaluation of the effects of the ion beam fragmentation in the patient, both in carbon treatment (projectile fragmentation) and proton treatment (target fragmentation). V.P. has been the spokesperson of two international collaborations addressing this issue: S371-FIRST (Fragmentation of Ions Relevant for Space and Therapy; Germany, France, Italy), which took data at GSI in 2011-2012, and the FOOT (FragmentatiOn Of Target) (Germany, France, Japan and Italy), which at present is in data taking phase. The FOOT experiment has been included in the NUPEC 2017 roadmap and has been included in the European Space Agency research program for radioprotection on space
- Imaging optimization of the dose release in particle therapy treatment. Beam range monitoring during the treatment is one of the major improvement of the quality assurance of the treatment. It can be achieved exploiting the neutral and charged secondary flux produced by the interaction of the beam with the patient tissue. Due the absence of data about the secondary production V.P. had been the PI of the design, construction, data taking, data analysis, and simulation of several measurement campaigns at LNS, GSI, HIT, CNAO and TIFPA.
- The study of the secondary emission provided the V.P. group with the knowledge necessary for the design of an on-line beam range monitor device, to be used at CNAO. This device is made of a compact tracker to detect charged secondary emission allowing on-line monitoring of carbon beam range. The group led by V.P. designed and built the detector, the front-end electronics, the data acquisition and an innovative on-line reconstruction technique. The device is now in clinical trial at CNAO. This activity has been carried out initially within the INSIDE PRIN project and then within the Centro Fermi Project dedicated to technology development in Particle Therapy.
- V.P. has been deeply involved in Monte Carlo software development applied to medical physics and radioprotection, notably to its use in developing the Treatment Planning System in particle therapy. Such an activity has been carried out within the INFN-CERN FLUKA collaboration (V.P. is a contributing author of the FLUKA code) and within the INFN-TPS collaboration, which produced a commercial Treatment Planning System for carbon and proton. V.P. is coordinating the development of the FRED (Fast paRticle thErapy Dose evaluator) Monte Carlo software that computes on GPU the dose released to the patient by

a proton beam reducing the CPU time of two orders of magnitude. That software is under test at CNAO and Paul Scherrer Institute (Villigen, Switzerland) and routinely used at IFJ PAN (Krakow) and MAASTRO (Maastricht) proton therapy centers.

- A parallel research stream has been focused on the development of an innovative intraoperative probe for brain surgery in oncology. Such an intraoperative tool, which effectively detects tumor margins in real time, could be a useful surgical adjunct for brain tumor resection. That work provided V.P. of a patent about “Intraoperative detection of tumor residues using β - radiation and corresponding probes, N.PCT/IT2014/000025

b) 1993-2010. Study of fundamental discrete symmetries of sub-nuclear interaction and of the quark mixing matrix unitarity.

This research took place within the international KLOE collaboration, that designed and built an apparatus optimized for the study of discrete symmetries (parity inversion, time inversion and charge conjugation) in the quantum system of charged and neutral kaon pairs generated in the decay at rest of phi mesons, and of the unitarity test of the quark mixing matrix (CKM). The KLOE data taking at the DAPHNE electron-positron collider of the Frascati National Laboratory of INFN ended in april 2006.

The contribution of the candidate to the detector was first focused in the design of the charged particle trigger system and in the development of the simulation and reconstruction software of the drift chamber. V.P. was also the coordinator of the analysis group that studied the charged kaon physics. This activity updated all the charged kaon branching ratios in literature and led to an updated determination of the V_{us} element of the CKM quark mixing matrix.

In 2008 V.P. has become a member of Policy Board of the KLOE2 collaboration that extended the KLOE physics program at the renewed DAPHNE machine with an upgraded detector.

c) 1987-2004 Study of high energy penetrating cosmic rays

The main effort in this field was carried out within the MACRO experiment, hosted in Hall B of the underground laboratories of Gran Sasso (INFN) and conducted by an Italy-US collaboration. The aims of this experiment were the study of the penetrating cosmic radiation, the search for neutrinos from stellar collapses inside our galaxy, and the possible detection of magnetic monopoles of cosmological origin.

The MACRO detector was optimized for the detection of magnetic monopoles. V.P. carried out the computation of the interaction probability (and the tracking efficiency) of the slow monopoles in the MACRO tracking system, providing an important contribution to the monopole flux limit determination.

Selected 10 publications in the last 5 years

Battistoni, G., Toppi, M., Patera, V. Measuring the Impact of Nuclear Interaction in Particle Therapy and in Radio Protection in Space: the FOOT Experiment (2021) *Frontiers in Physics*, 8, DOI: 10.3389/fphy.2020.568242

Fischetti, M., Baroni, G., Battistoni, G., Bisogni, G., Cerello, P., Ciocca, M., De Maria, P., De Simoni, M., Di Lullo, B., Donetti, M., Dong, Y., Embriaco, A., Ferrero, V., Fiorina, E., Franciosini, G., Galante, F., Kraan, A., Luongo, C., Magi, M., Mancini-Terracciano, C., Marafini, M., Malekzadeh, E., Mattei, I., Mazzoni, E., Mirabelli, R., Mirandola, A., Morrocchi, M., Muraro, S., Patera, V., Pennazio, F., Schiavi, A., Sciubba, A., Solfaroli Camillocci, E., Sportelli, G., Tampellini,

S., Toppi, M., Traini, G., Valle, S.M., Vischioni, B., Vitolo, V., Sarti, A. "Inter-fractional monitoring of 12 C ions treatments: results from a clinical trial at the CNAO facility", (2020) *Scientific Reports*, 10 (1), art. no. 20735, DOI: 10.1038/s41598-020-77843-z

Patera, V., Prezado, Y., Azaiez, F., Battistoni, G., Bettoni, D., Brandenburg, S., Bugay, A., Cuttone, G., Dauvergne, D., de France, G., Graeff, C., Haberer, T., Inaniwa, T., Incerti, S., Nasonova, E., Navin, A., Pullia, M., Rossi, S., Vandevoorde, C., Durante, M. "Biomedical Research Programs at Present and Future High-Energy Particle Accelerators" (2020) *Frontiers in Physics*, 8, DOI: 10.3389/fphy.2020.00380

Traini, G., Battistoni, G., Giacometti, V., Gioscio, E., Marafini, M., Mirabelli, R., Pinci, D., Sarti, A., Sciubba, A., Patera, V. "Preliminary test of the MONDO project secondary fast and ultrafast neutrons tracker response using protons and MIP particles", (2018) *Journal of Instrumentation*, 13 (4), art. no. C04014, DOI: 10.1088/1748-0221/13/04/C04014

Rucinski, A., Battistoni, G., Collamati, F., De Lucia, E., Faccini, R., Frallicciardi, P.M., Mancini-Terracciano, C., Marafini, M., Mattei, I., Muraro, S., Paramatti, R., Piersanti, L., Pinci, D., Russomando, A., Sarti, A., Sciubba, A., Solfaroli Camillocci, E., Toppi, M., Traini, G., Voena, C., Patera, V. "Secondary radiation measurements for particle therapy applications: Charged particles produced by 4He and 12C ion beams in a PMMA target at large angle" (2018) *Physics in Medicine and Biology*, 63 (5), DOI: 10.1088/1361-6560/aaa36a

Schiavi, A., Senzacqua, M., Pioli, S., Mairani, A., Magro, G., Molinelli, S., Ciocca, M., Battistoni, G., Patera, V. "Fred: A GPU-accelerated fast-Monte Carlo code for rapid treatment plan recalculation in ion beam therapy", (2017) *Physics in Medicine and Biology*, 62 (18), pp. 7482-7504. DOI: 10.1088/1361-6560/aa8134

Marafini, M., Patera, V., Pinci, D., Sarti, A., Sciubba, A., Spiriti, E. "ORANGE: A high sensitivity particle tracker based on optically read out GEM" (2017) *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, 845, pp. 285-288. DOI: 10.1016/j.nima.2016.04.014

Traini, G., Battistoni, G., Bollella, A., Collamati, F., De Lucia, E., Faccini, R., Ferroni, F., Frallicciardi, P.M., Mancini-Terracciano, C., Marafini, M., Mattei, I., Miraglia, F., Muraro, S., Paramatti, R., Piersanti, L., Pinci, D., Rucinski, A., Russomando, A., Sarti, A., Sciubba, A., Senzacqua, M., Solfaroli-Camillocci, E., Toppi, M., Voena, C., Patera, V. "Design of a new tracking device for on-line beam range monitor in carbon therapy" (2017) *Physica Medica*, 34, pp. 18-27. DOI: 10.1016/j.ejmp.2017.01.004

Toppi, M., Abou-Haidar, Z., Agodi, C., Alvarez, M.A.G., Aumann, T., Balestra, F., Battistoni, G., Bocci, A., Böhlen, T.T., Boudard, A., Brunetti, A., Carpinelli, M., Cirio, R., Cirrone, G.A.P., Cortes-Giraldo, M.A., Cuttone, G., De Napoli, M., Durante, M., Fernández-García, J.P., Finck, C., Golosio, B., Iarocci, E., Iazzi, F., Ickert, G., Introzzi, R., Juliani, D., Krimmer, J., Kummali, A.H., Kurz, N., Labalme, M., Leifels, Y., Le Fèvre, A., Leray, S., Marchetto, F., Monaco, V., Morone, M.C., Nicolosi, D., Oliva, P., Paoloni, A., Piersanti, L., Pleskac, R., Randazzo, N., Rescigno, R., Romano, F., Rossi, D., Rosso, V., Rousseau, M., Sacchi, R., Sala, P., Salvador, S., Sarti, A., Scheidenberger, C., Schuy, C., Sciubba, A., Sfienti, C., Simon, H., Sipala, V., Spiriti, E., Tropea, S., Vanstalle, M., Younis, H., Patera, V. "Measurement of fragmentation cross sections of C 12 ions on a thin gold target with the FIRST apparatus" (2016) *Physical Review C*, 93 (6), DOI: 10.1103/PhysRevC.93.06460