

## **ALLEGATO B**

### **UNIVERSITÀ DEGLI STUDI DI MILANO**

selezione pubblica per n 1 posto/i di Ricercatore a tempo determinato ai sensi dell'art.24, comma 3, lettera b) della Legge 240/2010 per il settore concorsuale 02/D1 , settore scientifico-disciplinare FIS/07 presso il Dipartimento di Bioscienze, (avviso bando pubblicato sulla G.U. n. 47 del 14/06/2022) Codice concorso 5006

## **Pierluigi Piersimoni CURRICULUM VITAE**

**(N.B. IL CURRICULUM NON DEVE ECCEDERE LE 30 PAGINE E DEVE CONTENERE GLI ELEMENTI CHE IL CANDIDATO RITIENE UTILI AI FINI DELLA VALUTAZIONE.**

**LE VOCI INSERITE NEL FACSIMILE SONO A TITOLO PURAMENTE ESEMPLIFICATIVO E POSSONO ESSERE SOSTITUITE, MODIFICATE O INTEGRATE)**

### **INFORMAZIONI PERSONALI (NON INSERIRE INDIRIZZO PRIVATO E TELEFONO FISSO O CELLULARE)**

COGNOME	PIERSIMONI
NOME	PIERLUIGI
DATA DI NASCITA	27/07/1978

### **TITOLI**

#### **TITOLO DI STUDIO**

*(indicare la Laurea conseguita inserendo titolo, Ateneo, data di conseguimento, ecc.)*

Laurea in Fisica (ordinamento previgente) conseguita il 19/12/2008 presso l'Università di Bologna.  
Titolo della tesi: "Development of an innovative dosimetric system for IORT (Intra Operative Radiation Therapy)"

#### **TITOLO DI DOTTORE DI RICERCA O EQUIVALENTI, OVVERO, PER I SETTORI INTERESSATI, DEL DIPLOMA DI SPECIALIZZAZIONE MEDICA O EQUIVALENTE, CONSEGUITO IN ITALIA O ALL'ESTERO**

*(inserire titolo, ente, data di conseguimento, ecc.)*

Dottorato di Ricerca in Fisica, conseguito il 06/02/2014 presso l'Università di Pavia. Titolo della tesi: "Development of a Geant4 application for the study of uveal melanoma protontherapy at CNAO (Centro Nazionale di Adroterapia Oncologica)"

#### **CONTRATTI DI RICERCA, ASSEGNI DI RICERCA O EQUIVALENTI**

*(per ciascun contratto stipulato, inserire università/ente, data di inizio e fine, ecc.)*

Dal 07/2018 - 06/2021:

Postdoc fellowship presso Department of Physics and Technology,  
University of Bergen Allégaten 55  
5007 Bergen - Norway

Dal 11/2016 - 06/2018:

Postdoc fellowship presso German Cancer Research Center - DKFZ  
Division of Biomedical Physics in Radiation Oncology  
Im Neuenheimer Feld 280  
69120 Heidelberg - Germany

Dal 08/2015 - 07/2016

Postdoc fellowship presso University of California San Francisco  
Division of Radiation Oncology  
1600 Divisadero St.,  
San Francisco CA, 94115 USA

Dal 04/2014 - 06/2015

Postdoc fellowship presso Loma Linda University,  
Department of Basic Science  
Loma Linda, CA 92350 USA

#### **ATTIVITÀ DIDATTICA A LIVELLO UNIVERSITARIO IN ITALIA O ALL'ESTERO**

*(inserire anno accademico, ateneo, corso laurea, numero ore, ecc.)*

Docente presso Saint Camillus International University of Health and Medical Sciences - UniCamillus ROMA, nell'anno accademico 2021/2022:

- Corso di laurea in Medicine and Surgery  
Modulo di Applied Physics (5 CFU per due canali)  
corso integrato di Physics and Statistics
- Corso di laurea in Radiology, Diagnostic Imaging and Radiotherapy Techniques  
Modulo Bases of Physics and Radiation Physics (3 CFU)  
corso integrato di Information Technology, Statistics and Physics Applied to Radiological Science

#### **ORGANIZZAZIONE, DIREZIONE E COORDINAMENTO DI GRUPPI DI RICERCA NAZIONALI E INTERNAZIONALI, O PARTECIPAZIONE AGLI STESSI**

*(per ciascuna voce inserire anno, ruolo, gruppo di ricerca, ecc.)*

Partecipazione al gruppo di ricerca "US pCT collaboration" fondato dalle Università: Loma Linda University, University of California Santa Cruz, Northern Illinois University, Baylor University ed estesa a molte università e istituti di ricerca internazionali. Ho collaborato con tale gruppo di ricerca durante i periodi di PostDoc presso la Loma Linda University, UCSF, e il DKFZ.

Durante il periodo di ricerca presso UCSF ho lavorato al progetto TOPAS e TOPAS nBio, sviluppato da SLAC National Accelerator Laboratory, Massachusetts General Hospital e University of California at San Francisco con fondi del National Institute of Health degli Stati Uniti, e allo sviluppo del software Geant4, del CERN, Ginevra.

Durante il periodo di lavoro presso l'Università di Bergen, ho partecipato alla "Bergen pCT collaboration" fondata dal Dipartimento di Fisica e Tecnologia con molte altre università e istituti di ricerca internazionali.

#### **ATTIVITÀ DI RELATORE A CONGRESSI E CONVEGNI NAZIONALI E INTERNAZIONALI**

*(inserire titolo congresso/convegno, data, ecc.)*

**2022**

- P. Piersimoni, "Introduction to pCT - Imaging with charged particles", Invited contribution to the pCT event reconstruction and tomography workshop, Bergen, June 13, 2022 - June 14, 2022

## 2021

- P. Piersimoni, A. Schilling *on behalf of the Bergen pCT collaboration and the SIVERT research group* “ML models applied to the data-flow chain of the Bergen pCT Digital Tracking Calorimeter””. Poster presentation 2021 Virtual IEEE Nuclear Science Symposium And Medical Imaging Conference.
- P. Piersimoni, *on behalf of the Bergen pCT collaboration and the SIVERT research group* “A High-Granularity Digital Tracking Calorimeter Optimized for Proton CT”. Oral presentation (presenter) at the PTCOG59 Virtual Conference, 04-07 June 2021.
- P. Piersimoni, *on behalf of the Bergen pCT collaboration and the SIVERT research group* “Latest developments of the Bergen pCT project.”. Oral presentation (presenter) at the 7th Annual Loma Linda Workshop on Particle Imaging and Radiation Treatment Planning, 02-04 August 2021.
- Piersimoni, P; Kortus, T; Pettersen, HE S; Schilling, A, and Zillien, S, “ML models applied to the data-flow chain of the Bergen pCT Digital Tracking Calorimeter” Poster presentation (presenter) at the Virtual 2021 IEEE Nuclear Science Symposium and Medical Imaging Conference, 16-23 October 2021.

## 2020

- P. Piersimoni, and Sølve JR *on behalf of the Bergen pCT collaboration*. “The single sided digital tracking calorimeter designed and developed by the Bergen pCT group” Talk at the 6<sup>th</sup> Workshop on Parallel Algorithms and Computational Techniques in Proton Imaging and Intensity Modulated Proton Therapy, at Loma Linda University (Loma Linda CA, USA), July 2020.
- P. Piersimoni, *on behalf of the Bergen pCT collaboration*. “Optimised digital tracking calorimeter for proton CT”. Poster presentation (presenter) at the Virtual IEEE 2020 Nuclear Science Symposium and Medical Imaging Conference, in Boston, MA, USA, October 2020.
- P. Piersimoni, “An introduction to charged particle therapy and imaging” Invited Lecture at the Scientific Computing (SciComp) Seminar, Technische Universität Kaiserslautern, Germany, November 2020

## 2019

- P. Piersimoni, *on behalf of the Bergen pCT collaboration*. “The Proton CT project” Invited talk at the Workshop on Parallel Algorithms and Computational Techniques in Proton Imaging and Intensity Modulated Proton Therapy, at Loma Linda University (Loma Linda CA, USA), August 2019.
- Piersimoni, P., and Grøttvik, O., *on behalf of the Bergen pCT collaboration* “A high-granularity digital tracking calorimeter optimized for proton CT”. International biophysics collaboration meeting: Book of abstracts. 20 May 2019 - 22 May 2019, Darmstadt (Germany): GSI Helmholtzzentrum für Schwerionenforschung; 2019. Contract No.: GSI-2019-00596. DOI: 10.15120/GSI-2019-00596
- Piersimoni, P., Eikeland, V., Grøttvik, O., Sølve, J.R., Brons, S., Volz, L. et al. “Using the ALPIDE chip as a micrometric beam monitoring system” Poster presentation at the 58th Annual Conference of the Particle Therapy Co-operative Group (PTCOG58), Manchester, UK (2019)
- Piersimoni, P., *on behalf of the Bergen pCT collaboration*. “Monte Carlo simulation of a micrometric dosimetry system based on the ALPIDE chip”. Oral presentation at the 2nd International Conference on Monte Carlo Techniques for Medical Applications, Montreal, Canada, June 17-21 2019.

## 2018

- Graeff, C., Weber, U., Schuy, C., Saito, N., Volz, L., Piersimoni, P., et al. [OA027] Helium as a range probe in carbon ion therapy. *Physica Medica*. 2018;52:11. 10.1016/j.ejmp.2018.06.099
- P. Piersimoni, L. Volz, B. Faddegon, R. P. Johnson, R. W. Schulte, S. Huiberts, O. Grøttvik, Q. Malik, M. Varga-Kofarago, S. Brons, A. Sudar, J. Seco, and D. Roerich. “The status of particle CT at DKFZ and UiB”. Invited talk at the Workshop on Parallel Algorithms and Computational Techniques in Proton Imaging and Intensity Modulated Proton Therapy, at Loma Linda University (Loma Linda CA, USA), August 2018.
- L. Volz, P. Piersimoni, S. Brons, C.-A. Collins-Fekete, V.A. Bashkirov, R.P. Johnson, R. W. Schulte, and Joao Seco, “The importance to filter fragmentation events in helium imaging”, Oral

presentation at the Proton imaging workshop 2018, Lyon, France.  
<https://protonimaging.sciencesconf.org/208504>

## 2017

- P. Piersimoni, C.A. Collins Fekete, V.A. Bashkirov, B.A. Faddegon, R.P. Johnson, C.E. Ordoñez, J. Ramos Méndez, R. Schulte, L. Volz, J. Seco. "A direct comparison of helium and proton computed tomography using TOPAS simulations and experimental data". Poster presentation at the 56th Annual Conference of the Particle Therapy Co-operative Group (PTCOG56), Japan (2017).
- P. Piersimoni, C.A. Collins Fekete, V. Bashkirov, B. Faddegon, R. Johnson, C. Ordoñez, J. Ramos Méndez, R. Schulte, L. Volz, J. Seco. "A direct comparison of helium and proton computed tomography using TOPAS simulations and experimental data". Poster presentation at the National Center for Radiation Oncology 3rd Scientific Retreat at the German Cancer Research Center (DKFZ).
- P. Piersimoni, C.A. Collins Fekete, V. Bashkirov, B. Faddegon, R. Johnson, C. Ordoñez, J. Ramos Méndez, R. Schulte, L. Volz, J. Seco. "A Monte Carlo evaluation of the relative stopping power reconstruction accuracy using helium CT". Invited talk at the Physics meeting of heavy ion therapy groups (SoSe 2017), HIT facility Heidelberg.
- P. Piersimoni, V. Bashkirov, B. Faddegon, J. Ramos-Mendez, R. Schulte, J. Seco. "A Monte Carlo Study of the Relative Stopping Power Reconstruction Accuracy for Helium CT". Oral presentation (presenter) at the 59th Annual Meeting and Exhibition of the American Association of Physicists in Medicine (AAPM2017), in Denver CO, USA.
- C.A. Collins-Fekete, L. Volz, P. Piersimoni, C.E. Ordoñez, V.A. Bashkirov, R.P. Johnson, L. Beaulieu, R. Schulte, J. Seco. "Theoretical prediction and experimental verification of the spatial resolution and stopping power accuracy of helium and proton radiography/tomography". Oral presentation at the 59th Annual Meeting and Exhibition of the American Association of Physicists in Medicine (AAPM2017), in Denver CO, USA.
- P. Piersimoni, J. Ramos Méndez, V. Bashkirov, R. Schulte, B. Faddegon, L. Volz, and J. Seco. "A Monte Carlo evaluation of the relative stopping power reconstruction accuracy using helium CT". Invited talk at the Workshop on Parallel Algorithms and Computational Techniques in Proton Imaging and Intensity Modulated Proton Therapy, at Loma Linda University (Loma Linda CA, USA), August 2017.
- P. Piersimoni, V. Bashkirov, B. Faddegon, J. Ramos Méndez, R. Schulte, and J. Seco. "The relative stopping power accuracy of helium CT imaging evaluated using the Monte Carlo method". Oral presentation (presenter) at the Jahrestagung der BIOMEDIZINISCHEN TECHNIK und Dreiländertagung der MEDIZINISCHEN PHYSIK, in Dresden, Germany, September 2017. Biomed. Eng.-Biomed. Tech. 2017; 62(s1): S244-S247. DOI:10.1515/bmt-2017-5045.
- Volz, L., Collins-Fekete, C., Piersimoni, P., et al. "Stopping power accuracy and achievable spatial resolution of helium ion imaging using a prototype particle CT detector system". Oral presentation at the Jahrestagung der BIOMEDIZINISCHEN TECHNIK und Dreiländertagung der MEDIZINISCHEN PHYSIK, in Dresden, Germany September 2017. DOI: 10.1515/bmt-2017-5045
- P. Piersimoni, V. A. Bashkirov, C. A. Collins Fekete, B. A. Faddegon, R. P. Johnson, C. E. Ordoñez, J. Ramos Méndez, R. W. Schulte, L. Volz, J. Seco. "Development of helium CT (HeCT) imaging: Monte Carlo simulation and first experimental results". Poster presentation at the IEEE 2017 Nuclear Science Symposium and Medical Imaging Conference, in Atlanta, GA, USA.

## 2016

- P. Piersimoni, T. Geoghegan, J. Ramos Mendez, V. Bashkirov, R. Schulte, and B. Faddegon "Proton CT uncertainties estimated with measurement-validated Monte Carlo simulations" Oral presentation (presenter) at the PTCOG55 Conference, Prague, Czech Republic
- A. McNamara, J. Perl, P. Piersimoni, J. Ramos-Mendez, B. Faddegon, K. Held, H. Paganetti, J. Schuemann "Biological Geometries for the Monte Carlo Simulation Toolkit TOPASNBio", Medical Physics 43(6Part42) 3843-3843 (2016). Contribution at the 58th annual meeting of the American association of physicists in medicine (AAPM2016). 10.1118/1.4957995
- T.E. Plautz, R. P. Johnson, H. F.-W. Sadrozinski, A. Zatserklyaniy, V. Bashkirov, R. F. Hurley, R. W. Schulte, P. Piersimoni, V. Giacometti, "Spatial Resolution Studies in Proton CT Using a Phase-II Prototype Head Scanner" Medical Physics 43 (6Part8)3399-3399 (2016). Contribution at the 58th annual meeting of the American association of physicists in medicine (AAPM2016) 10.1118/1.4955882

## 2015

- T. Dou, J. Ramos-Mendez, P. Piersimoni, V. Giacometti, S. Penfold, Y. Censor, B. Faddegon, D. Low, and R. Schulte "Tools for Development of 4D Proton CT", Medical Physics, 42 (6Part9) 3298-3299 (2015). Contribution at the 57th annual meeting of the American association of physicists in medicine (AAPM2015) 10.1118/1.4924233
- P. Piersimoni, V. A. Bashkirov, R. W. Schulte, F. R. Cassetta Jr, R. P. Johnson, et al. "Experimental Proton CT: an update on Data Pre-Processing for Iterative Image Reconstruction" Poster Contribution M5DP-240 at 2015 IEEE NSS/MIC San Diego, CA, USA
- F. R. Cassetta Junior, P. Piersimoni, R. W. Schulte, V. Bashkirov, and R. P. Johnson "Performance of a Proton-CT-to-Proton-CT Image Registration Algorithm for Image-Guided Proton Therapy" Poster Contribution M5DP-276 at 2015 IEEE NSS/MIC San Diego, CA, USA
- V. Giacometti, S. Guatelli, A. Zatserklyaniy, R. P. Johnson, H. Sadrozinski, T. E. Plautz, P. Piersimoni, et al. "A Medipix Study of Proton Paths Through Heterogeneous Materials During Proton CT Data Acquisition" Poster Contribution M4CP-338 at 2015 IEEE NSS/MIC San Diego, CA, USA
- T. E. Plautz, R. P. Johnson, H. F.-W. Sadrozinski, A. Zatserklyaniy, V. Bashkirov, R. W. Schulte, P. Piersimoni, et al. "Improving Proton Radiography Using the Most Likely Path" Poster Contribution M5DP-260 at 2015 IEEE NSS/MIC San Diego, CA, USA

## 2014

- R. P. Johnson, V. Bashkirov, V. Giacometti, R. F. Hurley, P. Piersimoni, et al. "Results from a Pre-Clinical Head Scanner for Proton CT" Poster Contribution M11-63 at 2014 IEEE NSS/MIC - Seattle(WA), USA
- V. Bashkirov, R. P. Johnson, V. Giacometti, P. Piersimoni, T. Plautz, N. Vence, H. F.-W. Sadrozinski, R. Schulte, A. Zatserklyaniy "A novel phantom and method for calibration of the Phase II proton ct scanner" Poster at 2014 IEEE NSS/MIC conference - Seattle (WA)
- V. Giacometti, V. Bashkirov, P. Piersimoni, S. Guatelli, A. B. Rozenfeld, et al., "Geant4 Simulation Platform for the Phase II Proton CT Scanner" Poster at 2014 IEEE NSS/MIC conference - Seattle(WA)
- A. Rimoldi, P. Piersimoni, E. Farina, C. Riccardi "Geant4 simulation of a dedicated beam line at the CNAO facility for the study of uveal melanomas" Oral presentation at ICTR - PHE 2014 - Geneva (Switzerland)

## 2013

- A. Rimoldi, E. Farina, P. Piersimoni, M. Pirola, C. Riccardi "Geant4 Studies of the CNAO Facility System for Hadrontherapy Treatment of Uveal Melanomas" Talk at the Geant4 2013 International User Conference , Bordeaux (France)

## 2012

- A. Rimoldi, A. Fontana, P. Piersimoni, M. Pirola, C. Riccardi "Geant4 studies of an active scanning system for hadrontherapy treatment of uveal melanomas" Poster at ICTR - PHE 2012 - Geneva (Switzerland)

**TITOLI DI CUI ALL'ARTICOLO 24 COMMA 3 LETTERA A) E B) DELLA LEGGE 30 DICEMBRE 2010, N. 240**  
(indicare se contratto di tipologia A o B, Ateneo, data di decorrenza e fine contratto, ecc.)

Dal 10/2021 - 04/2022:

Ricercatore a tempo determinato di tipo a) presso Saint Camillus International University of Health and Medical Sciences - UniCamillus Via di Sant'Alessandro, 8, 00131 Roma

## **PRODUZIONE SCIENTIFICA**

### **PUBBLICAZIONI SCIENTIFICHE**

*(per ciascuna pubblicazione indicare: nomi degli autori, titolo completo, casa editrice, data e luogo di pubblicazione, codice ISBN, ISSN, DOI o altro equivalente)*

#### **2022**

- Aehle M, Alme J, Barnaföldi GG, Blühdorn J, Bodova T, Borshchov V, Brink AV, Chaar M, Eikeland V, Feofilov G, Garth C, et al.. Derivatives in proton ct. arXiv preprint arXiv:2202.05551. 2022 Feb 11..

#### **2021**

- Pettersen HES, Aehle M, Alme J, Barnaföldi GG, Borshchov V, et al. Investigating particle track topology for range telescopes in particle radiography using convolutional neural networks. Acta Oncologica (IONC). 2021. 10.1080/0284186X.2021.1949037.
- Pettersen HES, Volz L, Sølve JR, Alme J, Barnaföldi GG, Barthel R, et al. Helium radiography with a digital tracking calorimeter—a Monte Carlo study for secondary track rejection. Physics in Medicine & Biology. 2021;66(3):035004. 10.1088/1361-6560/abca03
- L. Volz, C.A. Collins-Fekete, P. Piersimoni, J. Seco, “Recent developments in proton imaging”, chapter included in “Monte Carlo Techniques in Radiation Therapy” edited by Joao Seco and Frank Verhaegen, Taylor & Francis. 2021 CRC Press

#### **2020**

- Alme J, Barnaföldi GG, Barthel R, Borshchov V, Bodova T, van den Brink A, et al. A High-Granularity Digital Tracking Calorimeter Optimized for Proton CT. Frontiers in Physics. 2020;8(460). 10.3389/fphy.2020.568243 *Corresponding author*
- Tambave G, Alme J, Barnaföldi GG, Barthel R, Van Den Brink A, Brons S, et al. Characterization of monolithic CMOS pixel sensor chip with ion beams for application in particle computed tomography. Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment. 2020;958:162626. 10.1016/j.nima.2019.162626
- Sølve JR, Volz L, Pettersen HES, Piersimoni P, Odland OH, Röhrich D et al. Image quality of list-mode proton imaging without front trackers. Physics in Medicine & Biology. 2020;65(13):135012. 10.1088/1361-6560/ab8ddb

#### **2019**

- L. Volz, P. Piersimoni, R.P. Johnson, V.A. Bashkirov, R.W. Schulte and J. Seco, "Technical Note: Improving single-event proton CT by removing nuclear interaction events within the energy detector", Physics in Medicine & Biology. 2019;64(15):15NT01. 10.1088/1361-6560/ab2671
- Cassetta R, Piersimoni P, Riboldi M, Giacometti V, Bashkirov V, Baroni G, et al. Accuracy of low-dose protonCT image registration for pretreatment alignment verification in reference to planning protonCT. Journal of Applied Clinical Medical Physics. 2019;20(4):83-90. 10.1002/acm2.12565
- Pettersen, H.E.S., Alme, J., Barnaföldi, G.G., Barthel, R., Van Den Brink, A., Chaar, M., et al. Design optimization of a pixel-based range telescope for proton computed tomography. Physica Medica. 2019; 63:87-97. DOI: 10.1016/j.ejmp.2019.05.026

#### **2018**

- Volz\*, L., Piersimoni\*, P., Bashkirov, V., Brons, S.; Collins-Fekete, C.-A.; Johnson, R.P., Schulte, R.W., Seco, J., The impact of secondary fragments on the quality of helium ion imaging, Phys. Med. Biol. 63 195016. (2018).Doi:10.1088/1361-6560/aadf25

\*shared first co-authorship

- Piersimoni, P., Faddegon, B. A., Méndez, J. R., Schulte, R. W., Volz, L. and Seco, J. (2018), Helium CT: Monte Carlo simulation results for an ideal source and detector with comparison to proton CT. *Med. Phys.*, 45: 3264-3274. doi:[10.1002/mp.12942](https://doi.org/10.1002/mp.12942)

## 2017

- Volz, L., Collins-Fekete, C., Piersimoni, P., et al. "Stopping power accuracy and achievable spatial resolution of helium ion imaging using a prototype particle CT detector system". *Current Directions in Biomedical Engineering*, 3(2), pp. 401-404, (2017), 10.1515/cdbme-2017-0084.
- P. Piersimoni, J. Ramos-Mendez, T. Geoghegan, V. A. Bashkirov, R. W. Schulte, B. A. Faddegon, "The effect of beam purity and scanner complexity on proton CT accuracy", *Medical Physics*, 44(1), 284-298 (2017). A picture from this paper was chosen to appear on the cover of *Medical Physics*.
- V. Giacometti, V.A. Bashkirov, P. Piersimoni, S. Guatelli, T.E. Plautz, H.F.-W. Sadrozinski, R.P. Johnson RP, A. Zatserklyaniy, T. Tessonier, K. Parodi, A.B. Rosenfeld, R.W. Schulte. "Software platform for simulation of a prototype proton CT scanner" *Med Phys.*, 44(3), 1002-1016 (2017). 10.1002/mp.12107.

## 2016

- T.E. Plautz, V. Bashkirov, V. Giacometti, R.F. Hurley, R.P. Johnson, P. Piersimoni, H.F.-W. Sadrozinski, R.W. Schulte, A. Zatserklyaniy. An evaluation of spatial resolution of a prototype proton CT scanner. *Med Phys.*, 43(12):6291 (2016). 10.1118/1.4966028
- H.F.-W. Sadrozinski, T. Geoghegan, E. Harvey, R.P. Johnson, T.E. Plautz, A. Zatserklyaniy, V. Bashkirov, R.F. Hurley, P. Piersimoni, et al. "Operation of the preclinical head scanner for proton CT" *Nuclear Instruments & Methods in Physics Research A* (2016). 10.1016/j.nima.2016.02.001
- R.P. Johnson, V. Bashkirov, L. DeWitt, V. Giacometti, R.F. Hurley, P. Piersimoni, et al. "A Fast Experimental Scanner for Proton CT: Technical Performance and First Experience with Phantom Scans", 2016, *IEEE Trans. Nucl. Sci.* 63-1

## 2015

- E. Farina, P. Piersimoni, C. Riccardi, A. Rimoldi, A. Tamborini and M. Ciocca, "Geant4 simulation of clinical proton and carbon ion beams for the treatment of ocular melanomas with the full 3-D pencil beam scanning system," 2015 4th International Conference on Advancements in Nuclear Instrumentation Measurement Methods and their Applications (ANIMMA), Lisbon, 2015, pp. 1-6, doi: 10.1109/ANIMMA.2015.7465562.
- Farina E, Piersimoni P, Riccardi C, Rimoldi A, Tamborini A, Ciocca M. Geant4 simulation for a study of a possible use of carbon ion pencil beams for the treatment of ocular melanomas with the active scanning system at CNAO. *Journal of Physics: Conference Series*. 2015;664(7):072048. 10.1088/1742-6596/664/7/072048. w2015 - Okinawa (Japan)
- P. Piersimoni, A. Rimoldi, C. Riccardi, M. Pirola, S. Molinelli and M. Ciocca, "Optimization of a general-purpose, actively scanned proton beamline for ocular treatments: Geant4 simulations" *Journal of Applied Clinical Medical Physics* Vol 16, No 2 (2015)

## 2014

- Rimoldi A, Piersimoni P, Pirola M, Riccardi C. "Geant4 studies of the CNAO facility system for hadrontherapy treatment of uveal melanomas". *Journal of Physics: Conference Series*. 2014;513(2):022028. 10.1088/1742-6596/513/2/022028. Talk (presenter) at the CHEP2013 Conference Amsterdam (Netherlands).
- Johnson RP, Bashkirov V, Giacometti V, Hurley RF, Piersimoni P, et al. (2014). Results from a pre-clinical head scanner for proton CT Authors . In: 2014 IEEE Nuclear Science Symposium and Medical Imaging Conference (NSS/MIC). IEEE Conference Record - Nuclear Science Symposium & Medical Imaging Conference, ISSN: 1082-3654, Seattle, WA, USA, 08 Nov - 15 Nov 2014, doi: 10.1109/NSSMIC.2014.7430876

## 2013

- A. Rimoldi, P. Piersimoni, M. Pirola and C. Riccardi, "Geant4 studies of the CNAO facility system for Hadrontherapy treatment of uveal melanoma," 2013 IEEE Nuclear Science Symposium and Medical Imaging Conference (2013 NSS/MIC), Seoul, 2013, pp. 1-5, doi: 10.1109/NSSMIC.2013.6829705.

Data

28/06/2022

Luogo

Cupra Marittima (AP)