CURRICULUM VITAE

PERSONAL INFORMATION

Name	**Paolo MAESTRO**
Address	**Department of Physical Sciences, Earth and Environment** **University of Siena, via Roma 56, 53100 Siena (Italy)**
Phone numbers	**0577234680 c/o INFN-Sez. Pisa: 0502214356**
E-mail	**paolo.maestro@pi.infn.it** **maestro@unisi.it**
Nationality	Italian
Place and date of birth	Cuneo (Italy), September 1st 1973

EDUCATION

PhD in Experimental Physics **1999-2003**
Department of Physics – University of Siena (Italy)

PhD thesis: *"Indirect search for dark matter by measurements of the cosmic ray positron spectrum with the AMS 02 experiment "*.
Supervisor: Prof. Pier Simone Marrocchesi
Thesis synopsis: the work describes the measurement of the performances of the AMS 02 electromagnetic calorimeter and the study and implementation of analysis algorithms aimed at the reconstruction of events in the calorimeter and the identification of electromagnetic and hadronic showers. The electron-hadron discrimination strategy has been applied successfully to both experimental data, collected in several beam tests at CERN, and Monte Carlo simulated data. Based on the obtained results, the AMS 02 capability to perform a high precision measurement of the cosmic-ray positron flux up to some hundreds of GeV, in a region of the spectrum at that time unexplored, and to detect a potential signal excess, as expected by several models of supersymmetric Dark Matter, are demonstrated.
Title of qualification awarded: PhD in Experimental Physics, on 21/11/2003.

Specialty school of Medical Physics **1997-1999**
University of Pisa (Italy)

Thesis: *"Simulation of the imaging properties of GaAs pixes detector for digital mammography"*
Supervisor: Prof. Ubaldo Bottigli
Thesis synopsis: medical imaging technologies, dosimetry, radiation protection, digital images processing, software simulation of the interaction of ionizing radiation with matter.
Title of qualification awarded: Master in Medical Physics with mark 50/50 cum laude.

Corso di Laurea in Fisica **1992-1997**
Dipartimento di Fisica - Università degli Studi di Pisa

Thesis title: *"Electronics systems for medical imaging with GaAs pixel detectors"*
Supervisor: Prof. Arnaldo Stefanini
Thesis synopsis: Research and development of solid state detectors for ionizing radiations to be applied as X-ray sensors in medical imaging devices in order to improve their efficiency, spatial resolution and imaging capability and reduce the dose to the patient.

Title of qualification awarded: Degree in Physics with mark 110/110 cum laude

Liceo Scientifico "G.B. Vasco" di Mondovì (CN) **1987-1992**

Title of qualification: Diploma di Maturità Scientifica with mark 60/60

POST-DEGREE TRAINING

• Place and date	Bologna (Italy), March 26-30 2001
• Organization providing training	INFN (National Institute of Nuclear Physics) - Committee for the transition to the new computing technologies (CNAF)
• Course title	9th specialization course on C++ and Object Oriented programming, analysis and design.
• Place and date	Erice (Italy), November 11-21 2000
• Organization providing training	Ettore Majorana Foundation and Centre for Scientific Culture
• Course title	International School of Cosmic Ray Astrophysics: Astrophysical Sources of High-Energy Particles and Radiation
• Place and date	Bologna (Italy), December 13-17 1999
• Organization providing training	INFN - Committee for the transition to the new computing technologies (CNAF)
• Course title	1st specialization course on GEANT4
• Place and date	Otranto (Italy), September 19-25 1999
• Organization providing training	INFN (National Institute of Nuclear Physics)
• Course title	12th National Seminar on Nuclear and Subnuclear Physics
• Place and date	Istanbul (Turkey), June 28-July 10 1999
• Organization providing training	CERN (European Organization for Nuclear Research)
• Course title	8th ICFA Instrumentation School in Elementary Particle Physics

WORK EXPERIENCE

• Period	From 19/8/2011
• Qualification	Expert in radiation protection qualified by the Italian Ministry of Labour and Social Policy
• Main activities	Consulting as freelance in radiation protection for medical offices and companies
• Period	From 1/10/2007 (confirmed in role from 1/10/2010)
• Institute of research	University of Siena (Italy), Department of Physical Sciences, Earth and Environment
• Position held	Assistant Professor and researcher
• Research activity	Experimental high-energy and astroparticle physics. My research is carried out at the University Department and National Institute of Nuclear Physics (INFN) in Pisa.
• Period	Jan.-July 2007
• Institute of research	National Institute of Nuclear Physics (INFN) – Pisa Polo Fibonacci - via Pontecorvo 3, 56100 Pisa, Italy
• Position held	Postdoc researcher in astroparticle physics

• Research activity	Scientific consulting in the framework of the project ASI LUNA for the study of the scientific exploitation of the Moon.
• Period	2003-2007
• Institute of research	University of Siena & INFN-Pisa
• Position held	Postdoc Research Assistant
• Research activity	Experimental cosmic-ray and astroparticle physics
• Period	2000-2002
• Institute of research	University of Siena & INFN-Pisa
• Position held	PhD student
• Research activity	Experimental cosmic-ray and astroparticle physics
• Period	1998-1999
• Institute of research	National Institute of Nuclear Physics (INFN) – Pisa
• Position held	Research fellow
• Research activity	Medical physics

DETAILS ON RESEARCH ACTIVITY

• Dates	From 2013
• Institution of research	National Institute of Nuclear Physics (INFN) – Pisa Polo Fibonacci - via Pontecorvo 3, 56100 Pisa, Italy
• Field of research	R&D on detectors and instrumentation for astroparticle physics
• Occupation or position held	Researcher and responsible of the local research team
• Main activities and responsibilities	CALOCUBE: development of a novel calorimeter with high acceptance for cosmic-ray experiments in space. Proposal selected by the Scientific Committee 5 of INFN as a strategic project and funded for three years with 1 M euro.
• Dates (from-to)	From 2011
• Institute of research	Physics Department - University of Siena via Roma 56, 53100 Siena, Italy
• Field of research	Astroparticle physics
• Occupation or position held	Assistant professor and researcher
• Main activities and responsibilities	CALET: space-based experiment (funded by Japanese Aerospace Exploration Agency (JAXA), Italian Space Agency (ASI) and NASA (US)) aimed at the measurement of the very high-energy charged cosmic rays and search for Dark Matter on board the International Space Station. Coordinator of the analysis group involved in measuring the cosmic-ray energy spectra (from 2015). Administrator of the Virtual Organization calet.org and responsible of the distributed computing infrastructure (GRID) of the experiment. Coordinator of the modeling and simulation group (2011-2015).
• Dates (from-to)	2010-2014
• Name and address of the employer	National Institute of Nuclear Physics (INFN) – Pisa

	Polo Fibonacci - via Pontecorvo 3, 56100 Pisa, Italy
• Field of research	Experimental High Energy Physics
• Occupation or position held	Scientific association
• Main activities and responsibilities	- Study of decays and spectroscopy of bottom and charmed baryons in the CDF experiment at Fermilab (USA). Measurement of the oscillations of the D^0 mesons. - R&D on focusing imaging ring Cherenkov detector equipped with Silicon photomultipliers (SPIDER funded by INFN).
• Dates (from-to)	2007-2010
• Name and address of the employer	Physics Department - University of Siena via Roma 56, 53100 Siena, Italy
• Field of research	Astroparticle physics
• Occupation or position held	Assistant professor and researcher
• Main activities and responsibilities	- Cosmic-ray physics in the experiments funded by INFN: AMS-02 e CREAM. - R&D of Silicon detectors for space applications in the projects MATRIX and SPIDER funded by INFN. - From Sept. 2008 to 2010 I was national responsible for INFN of the experiment CREAM. I coordinated the data analysis for the identification and measurement of the energy spectra of the charged cosmic-ray nuclei.
• Dates (from - to)	2003-2007
• Name and address of employer	Physics Department -University of Siena via Roma 56, 53100 Siena, Italy
• Field of research	Astroparticle physics
• Occupation or position held	Postdoc Research Assistant
• Main activities and responsibilities	- I worked on the development and construction of the Tungsten-scintillating fibers calorimeter of the cosmic ray experiment CREAM (Cosmic Ray Energetics And Mass). - I was responsible for the development of the Monte Carlo simulation code and the online data monitoring software. - I attended to the operating tests of the detector carried out at CERN (European Organization for Nuclear Research) in Geneve and at the University of Maryland and the NASA Goddard Space Flight (GSFC) and Wallops (WFF) centres in the USA. - I participated to two Antarctic campaigns organized by the Italian Polar Program (PNRA-ENEA), working in the Mc Murdo base (USA) on the preparation and test of the instrument before the first (December 2004) and second (December 2005) launch and on the data taking during the first phase of the mission.
• Dates (from – to)	January 2000 – December 2002
• Name and address of employer	Physics Department - University of Siena via Roma 56, 53100 Siena, Italy
• Field of research	Astroparticle physics
• Occupation or position held	PhD student
• Main activities and responsibilities	- I worked in a research team of the National Institute of Nuclear Physics (INFN) involved in the construction of the electromagnetic calorimeter for

the cosmic ray physics experiment AMS 02 (Alpha Magnetic Spectrometer).
- I worked on the operating test and performance mesurements of the calorimenter carried out at the SPS particle accelerator at CERN in Geneve.
- I developed data analysis tools for the identification and discrimination of electromagnetic and hadronic showers detected by the calorimeter.

• Dates (from – to)	January 2000 – September 2000
• Name and address of employer	Physics Department -University of Siena via Roma 56, 53100 Siena, Italy
• Field of research	Applied research in Medical Physics
• Occupation or position held	PhD student
• Main activities and responsibilities	I worked on the design and construction of an experimental apparatus for the suppression of Compton scattering in digital mammography, in the context of the national project "New techniques for medical, environmental and fine arts applications", funded by the Italian Ministry for Education and Science.

• Dates (from – to)	May 1999 – January 2000
• Name and address of employer	National Institute of Nuclear Physics (INFN) – Pisa Polo Fibonacci - via Pontecorvo 3, 56100 Pisa, Italy
• Field of research	Applied research in Medical Physics
• Occupation or position held	Research fellow
• Main activities and responsibilities	Research activity in a project aimed at the development and construction of a digital mammography based on solid state X-ray detectors. I worked on the development of GaAs pixel sensors and on problems concerning analysis and handling of digital images.

PARTICIPATION TO PROJECTS OF SCIENTIFIC RESEARCH

• Dates (from-to)	2014-16
• Project or experiment	CALOCUBE project for the development of innovative calorimeters for cosmic-ray experiments in space funded by INFN.
• Main responsibilities	Responsible of the research team in INFN-Pisa

• Dates (from-to)	2003-2010
• Project or experiment	CREAM (Cosmic Ray Energetics And Mass) funded by INFN and NASA aimed at the measurement of primary cosmic rays up to 1000 TeV
• Main responsibilities	Responsible for online monitoring. Coordinator of analysis of heavy nuclei spectra. National responsible for INFN from 2008 to 2010

• Dates (from-to)	From 2011 onwards
• Project or experiment	CALET (CALorimetric Electron Telescope, funded by Japanese Aerospace Exploration Agency (JAXA), Italian Space Agency (ASI) and NASA(US)) aimed at the measurement of very high-energy charged cosmic rays on board the International Space Station.
• Main responsibilities	Coordinator of the modeling and simulation group (2011-2015), coordinator of the data analysis group (from 2015), responsible of grid computing

• Dates (from-to)	2010-2013
• Project or experiment	CDF at Fermilab (funded by INFN and US DOE*)*
• Main responsibilities	Analysis of bottom baryon decays. Oscillations of D^0 mesons.

• Dates (from-to)	2009-2012
• Project or experiment	SPIDER (funded by INFN): R&D of detectors for ionizing radiations readout by Silicon photomultipliers.
• Main responsibilities	Researcher
• Dates (from-to)	2007-2009
• Project or experiment	MATRIX (funded by INFN): R&D of Silicon pixel sensors for the identification of the charge of relativistic nuclei.
• Main responsibilities	Researcher
• Dates (from-to)	2005-2007
• Project or experiment	Program of relevant national interest (PRIN funded by Italian Ministry of University and Research) titled: "*Development of an innovative instrument for the simultaneous study of electrical, magnetic and high-energy particle perturbations in the Van Hallen radiation belt and their correlation with phenomena of terrestrial origin*"
• Main responsibilities	Researcher
• Dates (from-to)	2005-2007
• Project or experiment	Program of relevant national interest (PRIN funded by Italian Ministry of University and Research) titled: "*Development of an innovative instrument for the simultaneous study of electrical, magnetic and high-energy particle perturbations in the Van Hallen radiation belt and their correlation with phenomena of terrestrial origin*".
• Main responsibilities	Researcher
• Dates (from-to)	2002-2004
• Project or experiment	Program of relevant national interest (PRIN funded by Italian Ministry of University and Research) titled: "*Research program for the establishment of a network of academic laboratories aimed at the development of instrumentations and advanced detection techniques for fundamental and astroparticle physics in space*".
• Main responsibilities	Researcher
• Dates (from-to)	2000-2002
• Project or experiment	Program of relevant national interest (PRIN funded by Italian Ministry of University and Research) titled: " *Research program for the establishment of a network of academic laboratories aimed at the construction and qualification of instrumentations for space science research*".
• Main responsibilities	Researcher
• Dates (from-to)	1998-2000
• Project or experiment	Program of relevant national interest (PRIN funded by Italian Ministry of University and Research) titled: " *Advanced imaging techniques for medical, environment and conservation of cultural heritage*".
• Main responsibilities	Researcher
• Dates (from-to)	1997-1999
• Project or experiment	MED46 (funded by INFN and Italian Ministry of Industry) aimed to the development and construction of a digital mammography system.
• Main responsibilities	Researcher

PUBLICATIONS

I am author or co-author of 194 paper published on international peer-reviewed journals, 67 conference proceedings, and 17 documents of scientific activity (internal notes, abstracts).
h-index: 27 (Scopus), 35 (InSpire-High-Energy Physics Literature Database)
Total number of citations: 3041 (Scopus), 4980 (InSpire-High-Energy Physics Literature Database)
A complete list of my publications is annexed at page14 of this CV.

TEACHING ACTIVITY

1. Tutor of Dr. Paolo Brogi, PhD student at the University of Siena. Thesis title: "Tracking and identification of proton and helium in CALET and perspectives for flux measurements", defended on 15/12/2015.

   Advisor of the master degree thesis in Physics and Advanced Technologies of the student Francesco Pacciani at the University of Siena (2011). Title of the thesis: "Characterization of the response of Silicon pixel matrices for the measurement of the composition of very high-energy cosmic rays".

   Tutor of Dr. Simone Bonechi, PhD student at the Univesity of Siena. Thesis title: "Charge identification of cosmic nuclei with CALET on ISS", defended on 16/6/2014

   Tutor of Dr. Fabrizio Ruffini, PhD student at the University of Siena. Thesis title: "Measurement of the charmless b-hadron decays at CDF; first evidence for the annihilation $B_s^0 \rightarrow \pi^+ \pi^-$ decay mode", defended on 4/6/2013.

   Supervisor of the PhD thesis of Dr. Francesco Palma at the University of Roma Tor Vergata.
   Thesis title: "Study of the performance of the CALET calorimeter-based orbital observatory for High Energy Astroparticle Physics". Winner of the ARAP (Roman Association for Astroparticles) award for the best PhD thesis in 2013.

   I have coordinated the work of PhD thesis at the University of Siena of Dr. Gabriele Bigongiari (2007, title of the thesis: "Energy measurements in the CREAM balloon experiment") and Dr. Riccardo Zei (2007, title of the thesis: "Preliminary measurements of cosmic-ray Carbon and Oxygen spectra with CREAM-II").

2. Member of the didactic committee of the graduate program in Physics and Advanced Technologies at the University of Siena, 2011-2012

   Member of the academic board of the PhD program in experimental physics at the University of Siena, from 2011.

3. As assistant professor at the University of Siena, I teached the following classes:

   Nuclear and subnuclear physics (9 CFU)
   Academic year: 2016/17
   Graduate program in Physics and Advanced Technologies

   Fluids and Thermodynamics
   Academic years: 2011/12, 2012/13, 2013/14, 2014/15, 2015/16, 2016/17
   Graduate programs in Physics and Mathematics

   Laboratory of experimental techniques - Data analysis techniques
   Academic years: 2011/12, 2012/13
   Graduate program in Physics and Advanced Technologies
   Physics
   Academic years: 2010/11

Graduate program in Biology

Electromagnetism
Academic years: 2009/10, 2015/16
Graduate program in Chemistry

Physics applied to biomedicine
Academic years: 2007/08, 2008/09
Graduate program in Biotechnology

Fundamentals of Physics
Academic years: 2007/08, 2008/09
Graduate program in Biology

Physics laboratory
Academic years: 2007/08, 2008/09, 2009/10
Graduate program in Biology

4. As **Contract Professor** at the University of Siena, I teached the following classes:

Physics applied to biomedicine
Academic years: 2003/04, 2004/05, 2005/06, 2006/07
Graduate program in Biotechnology

Applied Physics
Academic years: 2002/03, 2003/04, 2004/05, 2005/06
Graduate program in Orthoptic and Ophtalmologic Assistance, Faculty of Medicine and Surgery

Applied Physics
Academic years: 2005/06
Graduate program in Physics and Advanced Technologies

FELLOWSHIP AND AWARDS

- 2011-16 Member of the Scientific Commission "Science Exactes et Naturelles-2" of the Fonds de la Recherche Scientifique-FNRS, Belgium

- On February 1st 2011, I was awarded the National Science Foundation's Antarctica Service Medal "in recognition of valuable contributions to exploration and scientific achievement under the US Antarctic program".

- Qualification for associate professorship in the Italian academic system for scientific sectors
  02/B3 (Applied Physics) on 27/12/2013
  02/C1 (Astronomy Astrophysics) on 27/12/2013
  02/A1 (Experimental physics of fundamental interactions) on 28/11/2014.

- Certificate of outstanding contribution in reviewing in recognition of contributions made to the quality of the journal awarded on Oct. 2014 by the editor of Advances in Space Research, official journal of the Committee on Space Research (COSPAR)

- 1999 Fellowship of the National Institute of Nuclear Physics (INFN)

- 1998 Fellowship of the Specialty School of Medical Physics, University of Pisa, Italy

REFEREE ACTIVITY

• Period	2016
• Institution	Italian Ministry of University and Research
• Activity	Evaluation of the scientific activity of Italian researchers within the VQR (Evaluation of Quality of Research) program 2011-14 promoted by ANVUR (National Agency for Evaluation of University and Research)
• Period	2013
• Institution	Italian Ministry of University and Research
• Activity	Review and evaluation of research projects within the funding program FIRB for young researchers.
• Period	2011-2016
• Institution	Fonds de la Recherche Scientifique-FNRS of Belgium
• Position held	Member of the “Sciences Exactes et Naturelles" Scientific Commission
• Activity	Review and evaluation of scientific research projects and proposals
• Period	From 2014
• Scientific journals	Nuclear Instruments and Methods in Physics Research Section A, Advances in space research
• Activity	Peer-review of scientific papers
• Dates (from-to)	From 2011 onwards
• Institute	Cyprus Research Promotion Foundation (RPF)
• Activity	Review and evaluation of scientific research projects

MEMBERSHIP OF SCIENTIFIC SOCIETIES AND INSTITUTIONS

- Responsible of scientific research at INFN (National Institute for Nuclear Physics) from Jan. 2012
- Expert in radiation protection qualified by the Italian Ministry of Labour and Social Policy
- Scientific association to CERN (European Center for Nuclear Research) from 2000
- Scientific association to Fermi National Accelerator Laboratory (USA) 2010-2014
- Associated member of the United States Antarctic Program (USAP) of the National Science Foundation (USA) 2004-2005
- Associated member of the National Program for Antarctic Researches (PNRA-ENEA, Italy) 2004-2006
- Member of the Scientific Commission "Science Exactes et Naturelles-2" (SEN-2) of the Fonds de la Recherche Scientifique-FNRS of Belgium from 2011.
- Scientific Association to INFN 1999-2011

VISITING PERIODS IN OTHER INSTITUTIONS

- From 2000 (~1 month per year) CERN, Geneve (Switzerland)
- 03.2017 Louisiana State University in Baton Rouge, US
- 11.2013 Washington University in Saint Louis, MO, US
- 05.2012 NASA Goddard Space Flight Center, MD, US
- 08.2011 10.2014 Waseda University, Tokyo (Japan)
- 04.2011 Fermi National Accelerator Laboratory, IL, US
- 11.2004 – 12.2004 & 11.2005 – 12.2005 McMurdo station (Antarctica)
- 07.2005 – 08.2005 NASA - Wallops Flight Facility, VA, US
- 05.2003 & 02.2004 – 07.2004 Institute of Physical Science and Technology, University of Maryland, US
- 01.2001 NASA Kennedy Space Center, Cape Canaveral, FL, US

PRESENTATIONS AT INTERNATIONAL CONFERENCES AND SEMINARS

• Place and date	Busan, South Korea, July 12-20, 2017
• Conference name	*35th International Cosmic Ray Conference*
• Title of the talk	*"Particle tracking in the CALET experiment"*
• Place and date	L'Aquila, Italy, June 12th , 2017
• Conference name	*International School of Space Science at GSSI. Cosmic Ray Physics in Space*
• Title of the talk	*"Elemental abundances and the origin of galactic cosmic rays" (Invited talk)*
• Place and date	The Hague, The Netherlands, July 30- August 6, 2015
• Conference name	*34th International Cosmic Ray Conference*
• Title of the talk	*Rapporteur talk: "Cosmic rays:direct measurements" (Invited talk)*
• Place and date	Vulcano, Italy, May 18-24, 2014
• Conference name	*Vulcano Workshop, Frontier objects in Astrophysics and Particle Physics*
• Title of the talk	*"The CALET mission on the International Space Station"*
• Place and date	Barcellona, Spain, 13-18 May 2013
• Conference name	*LHCP2013, Large Hadron Collider Physics Conference*
• Title of the talk	*"Measurement of D^0- D^0bar mixing at CDF"*
• Place and date	Pisa, Italy, 8 May 2013
• Conference name	INFN sezione di Pisa
• Title of the talk	*"Observation of charm mixing at CDF" (Invited talk)*
• Place and date	Bologna, Italy, 8-12 Apr. 2013
• Conference name	*14th International Conference on B-Physics at Hadron Machines*
• Title of the talk	*"Observation of charm mixing at CDF" (Invited talk)*
• Place and date	*Paris, France, 10-12 Dec. 2012*
• Conference name	*Workshop "Searching for the sources of Galactic cosmic rays"*
• Title of the talk	*"Results of balloon experiments" (Invited talk)*
• Place and date	Moscow, Russia, 3-7 July 2012
• Conference name	23rd European Cosmic Ray Symposium
• Title of the talk	*"Astroparticle Physics with the CALET Experiment"*
• Place and date	Prague, Czech Republic, 11-15 June 2012

• Conference name	11th International Conference on Heavy Quarks and Leptons 2012
• Title of the talk	*"Rare decay searches at CDF II" (Invited talk)*
• Place and date	Pisa, Italy, 19 May 2010
• Conference name	Astroparticle Journal Club INFN
• Title of the talk	*"Cosmic-ray nuclei: new measurements from CREAM and possible astrophysical interpretation" (Invited seminar)*
• Place and date	Paris, France, 19-23 July 2010
• Conference name	TeV Particle Astrophysics 2010
• Title of the talk	*"Cosmic-ray energy spectra up to 1014 eV from the first two CREAM flight"*
• Place and date	Lodz, Poland, 7-15 July 2009
• Conference name	31st International Cosmic Ray Conference
• Title of the talk	*"Elemental energy spectra of cosmic rays measured by CREAM-II"*
• Place and date	Parigi, Francia, 1-6- Sept. 2008
• Conference name	XV International Symposium on Very High Energy Cosmic Ray Interactions (ISVHECRI 2008)
• Title of the talk	*"Preliminary measurements of the absolute fluxes of heavy nuclei from Carbon to Silicon with the second CREAM flight"*
• Place and date	Merida, Yucatan, Mexico, 3-11 July 2007
• Conference name	30th International Cosmic Ray Conference
• Title of the talk	*"Energy cross-calibration from the first CREAM flight: transition radiation detector versus calorimeter"*
• Place and date	La Biodola, Isola d'Elba (Italy), 21-27 May 2006
• Conference name	10th Pisa Meeting on Advanced Detectors "Frontier Detectors for Frontier Physics"
• Title of the talk	*"Calorimeter performance during the second flight of CREAM"*
• Place and date	Siena, 23-26 Maggio 2004
• Conference name	9th Topical Seminar on Innovative Particle and Radiation Detectors
• Title of the talk	*"Performance of CREAM Calorimeter: Results of Beam Tests"*
• Place and date	Perugia, Italy, 25 March-2 April 2004
• Conference name	CALOR2004 - 11th International Conference on Calorimetry in Particle Physics
• Title of the talk	*"Beam test calibration of the balloon-borne imaging calorimeter for the CREAM experiment"*
• Place and date	Siena, 21-24 Oct. 2002
• Conference name	8th Topical Seminar on Innovative Particle and Radiation Detectors
• Title of the talk	*"Low energy beam test results of a calorimeter prototype for the CREAM experiment"*
• Place and date	Pasadena (USA), 25-29 March 2002
• Conference name	CALOR2002 - 10th International Conference on Calorimetry in Particle Physics
• Title of the talk	*"Performances of the AMS 02 Calorimeter"*
• Place and date	San Diego (USA), July 27-Aug. 3rd 2001
• Conference name	SPIE's 46th Conference on Penetrating Radiation Systems and Applications
• Title of the talk	*"A proof-of-principle apparatus for scattering suppression in digital mammography "*

• Place and date	La Biodola, Isola d'Elba (Italy), 21-27 May 2000
• Conference name	8th Pisa Meeting on Advanced Detectors "Frontier Detectors for Frontier Physics"
• Title of the talk	*"Optical survey of a lead scintillating fiber calorimeter by digital imaging technique"*
• Place and date	Fermi National Accelerator Laboratory, Batavia, IL (USA), 7-9 May 1998
• Conference name	PIXEL98, International Pixel Detector Workshop
• Title of the talk	*"A medical imaging system based on a GaAs pixel detector readout by a single-photon counting VLSI electronics"*

SCIENCE OUTREACH

Participation to the project "Pianeta Galileo 2015" for public outreach promoted by the Regional Council of Tuscany.
I hold a seminar titled "Haunting cosmic rays in space, deserts and among the polar ices" in several high-schools.

PERSONAL SKILLS AND COMPETENCIES

MOTHER TONGUE **Italian**

OTHER LANGUAGES	Reading skills	Writing skills	Oral skills
English	Excellent	Excellent	Fluent
French	Good	Good	Good
German	Basic	Basic	Basic

PERSONAL AND SOCIAL SKILLS

I developed strong problem-solving skills and ability to work under pressure and to cope with deadlines by working in a highly demanding international environment (CERN, Fermilab, University del Maryland, NASA GSFC and WFF, McMurdo Station, Waseda University).
I established interpersonal skills and ability to work in multinational teams.
I consolidated strong communication skills by giving presentations in work meetings and top-level international conferences, writing regular work reports and documents and publishing papers in international scientific journals (more than 200 publications).

TECHNICAL SKILLS AND COMPENTENCIES

Research activity fields

- Detection techniques of ionizing radiations (solid state devices, photosensors, scintillation detectors, calorimeters) for applications in nuclear, particle, astroparticle physics and medical applications
- Data acquisition systems for particle detectors
- X-ray spectroscopy
- Medical imaging technologies
- Radiation dosimetry and protection
- Statistical analysis and data mining
- Digital images processing
- Monte Carlo simulation of radiation transport and interaction with matter
- Italian regulation in matter of radiation protection. International recommendations (ICRP, NCRP, AIEA)
- Distributed computing infrastructure (GRID)

Computer knowledge

- Operating systems: Windows, Unix, Linux, Mac OS X
- Programming languages: Fortran, C, C++ (excellent), Java (basic)
- Scripting languages: Unix shell scripts, Python
- Object Oriented programming analysis and design
- Software applications: Microsoft Office, data analysis and management programs (Microcal Origin, ROOT, PAW) , images processing programs (Adobe Photoshop, NIH image).
- Monte Carlo simulation software packages used in nuclear and particle physics (EGS4, Geant3, Geant4, Fluka, Epics).

ARTISTIC SKILLS AND COMPETENCIES

Music: first level degree of classic guitar at the Conservatorium "Mascagni" in Livorno (September 1998).

PERSONAL INTERESTS

I like to travel and experience different cultures. Music. Playing chess.

Pisa, 8/9/2017

LIST OF PUBLICATIONS OF PAOLO MAESTRO

Articles published in peer-reviewed journals

1. T. Aaltonen *et al.,* The CDF collaboration
   Measurement of the D^+-meson production cross section at low transverse momentum in p anti-p collisions at $\sqrt{s}$=1.96 TeV
   Phys.Rev. D 95 (2017) 092006 doi:10.1103/PhysRevD.95.092006

2. Y. Asaoka *et al.,* The CALET collaboration
   Energy calibration of CALET onboard the International Space Station
   Astroparticle Physics 91 (2017) 1-10 doi:10.1016/j.astropartphys.2017.03.002

3. P.S. Marrocchesi, M.G. Bagliesi, A. Basti, G. Bigongiari, S. Bonechi, P. Brogi, C. Checchia, G. Collazuol, P. Maestro, F. Morsani, C. Piemonte, F. Stolzi, J.E. Suh, A. Sulaj
   Photon counting with a FDIRC Cherenkov prototype readout by SiPM arrays
   Nucl. Instr. And Meth. A845 (2017) 447-451 doi:10.1016/j.nima.2016.05.069

4. E. Vannuccini *et al.,*
   CaloCube: A new-concept calorimeter for the detection of high-energy cosmic rays in space
   Nucl. Instr. And Meth. A845 (2017) 421-424 doi:10.1016/j.nima.2016.07.014

5. O. Adriani *et al.,* The CALET collaboration
   CALET UPPER LIMITS ON X-RAY AND GAMMA-RAY COUNTERPARTS OF GW151226
   Astrophys. J. Lett. **829 (2016)** L20 doi:10.3847/2041-8205/829/1/L20

6. T. Aaltonen *et al.,* The CDF collaboration
   Measurement of Measurement of the WW and WZ production cross section using final states with a charged lepton and heavy-flavor jets in the full CDF Run II data set
   Phys.Rev. D 94 (2016) 032008

7. T. Aaltonen *et al.,* The CDF collaboration
   Measurement of $\sin 2\theta^{lept}_{eff}$ using e+e− pairs from γ*/Z bosons produced in p anti-p collisions at a center-of-momentum energy of 1.96 TeV
   Phys.Rev. D 93 (2016) 112016 doi:10.1103/PhysRevD.93.112016

8. T. Aaltonen *et al.,* The CDF collaboration
   Search for a low-mass neutral Higgs boson with suppressed couplings to fermions using events with multiphoton final states
   Phys.Rev. D 93 (2016) 112010 doi:10.1103/PhysRevD.93.112010

9. T. Aaltonen *et al.,* The CDF collaboration
   Measurement of the forward–backward asymmetry of top-quark and antiquark pairs using the full CDF Run II data set
   Phys.Rev. D 93 (2016) 112005 doi:10.1103/PhysRevD.93.112005

10. T. Aaltonen *et al.,* The CDF collaboration
    Measurement of the forward-backward asymmetry in low-mass bottom-quark pairs produced in proton-antiproton collisions
    Phys.Rev. D 93 (2016) 112003 doi:10.1103/PhysRevD.93.112003

11. T. Aaltonen *et al.,* The CDF collaboration

Measurement of vector boson plus D*(2010)+ meson production in p anti-p collisions at √s=1.96 TeV
Phys.Rev. D 93 (2016) 052012 doi:10.1103/PhysRevD.93.052012

12. P.S. Marrocchesi, M.G. Bagliesi, A. Basti, G. Bigongiari, S. Bonechi, P. Brogi, C. Checchia, G. Collazuol, P. Maestro, F. Morsani, C. Piemonte, F. Stolzi, J.E. Suh, A. Sulaj
Digital FDIRC: A focused differential internal reflection Cherenkov imaged by SiPM arrays
Nucl. Instr. And Meth. A824 (2016) 635 doi:10.1016/j.nima.2015.11.014

13. R. D'Alessandro *et al.,*
Calocube - A highly segmented calorimeter for a space based experiment
Nucl. Instr. And Meth. A824 (2016) 609 doi:10.1016/j.nima.2015.09.073

14. T. Aaltonen *et al.,* The CDF collaboration
Measurement of the $B_c\pm$ production cross section in p anti-p collisions at √s=1.96 TeV
Phys.Rev. D 93 (2016) 052001 doi:10.1103/PhysRevD.93.052001

15. T. Aaltonen *et al.,* The CDF collaboration
Measurement of the Single Top Quark production cross section and $|V_{tb}|$ in 1.96 TeV p-anti p collissions with missing transverse energy and jets and final CDF combination
Phys.Rev. D 93 (2016) 032011 doi:10.1103/PhysRevD.93.032011

16. N.P. Topchiev *et al.,* The GAMMA-400 collaboration
The GAMMA-400 experiment: Status and prospects
Bulletin of the Russian Academy of Sciences: Physics Volume 79, Issue 3, (2015) 417-420

17. T. Aaltonen *et al.,* The CDF collaboration
Study of the energy dependence of the underlying event in proton-antiproton collisions
Phys.Rev. D 92 (2015) 092009 doi:10.1103/PhysRevD.92.092009

18. A.A. Leonov *et al.,* The GAMMA-400 collaboration
Separation of electrons and protons in the GAMMA-400 gamma-ray telescope
Advances in Space Research 56, Issue 7 (2015) 1538

19. T. Aaltonen *et al.,* The CDF collaboration
Tevatron Combination of Single-Top-Quark Cross Sections and Determination of the Magnitude of the Cabibbo-Kobayashi-Maskawa Matrix Element V_{tb}
Phys.Rev. Lett. 115 (2015) 152003 doi:10.1103/PhysRevLett.115.152003

20. T. Aaltonen *et al.,* The CDF collaboration
First measurement of the forward-backward asymmetry in bottom-quark pair production at high mass
Phys.Rev. D 92 (2015) 032006 doi:10.1103/PhysRevD.92.032006

21. T. Aaltonen *et al.,* The CDF collaboration
Measurement of the top-quark mass in the t-tbar dilepton channel using the full CDF Run II data set
Phys.Rev. D 92 (2015) 032003 doi:10.1103/PhysRevD.92.032003

22. T. Aaltonen *et al.,* The CDF collaboration
Search for Resonances Decaying to Top and Bottom Quarks with the CDF Experiment
Phys.Rev. Lett. 115 (2015) 061801 doi:10.1103/PhysRevLett.115.061801

23. T. Aaltonen *et al.,* The CDF collaboration
Measurement of the production and differential cross sections of W^+W^- bosons in association with jets in p anti-p collisions at √s=1.96 TeV

Phys.Rev. D 91 (2015) 111101R doi:10.1103/PhysRevD.91.111101

24. T. Aaltonen *et al.,* The CDF collaboration
Measurement of central exclusive $\pi^+ \pi^-$ production in in p anti-p collisions at $\sqrt{s}$=0.9 and 1.96 TeV at CDF
Phys.Rev. D 91 (2015) 091101R doi:10.1103/PhysRevD.91.091101

25. T. Aaltonen *et al.,* The CDF and D0 collaborations
Tevatron Constraints on Models of the Higgs Boson with Exotic Spin and Parity Using Decays to Bottom-Antibottom Quarks Pairs
Phys.Rev. Lett. 114 (2015) 151802 doi:10.1103/PhysRevLett.114.151802

26. T. Aaltonen *et al.,* The CDF collaboration
Constraints on Models of the Higgs Boson with Exotic Spin and Parity Using Decays to Bottom-Antibottom Quarks in the Full CDF Data Set
Phys.Rev. Lett. 114 (2015) 141802 doi:10.1103/PhysRevLett.114.141802

27. T. Aaltonen *et al.,* The CDF collaboration
Search for production of an Upsilon(1S) meson in association with a W or Z boson using the full 1.96 TeV proton anti-proton collision data set at CDF
Phys.Rev. D 91 (2015) 052011 doi:10.1103/PhysRevD.91.052011

28. T. Aaltonen *et al.,* The CDF collaboration
Studies of high-transverse momentum jet substructure and top quarks produced in 1.96 TeV proton-antiproton collisions
Phys.Rev. D 91 (2015) 032006 doi:10.1103/PhysRevD.91.032006

29. T. Aaltonen *et al.,* The CDF collaboration
Measurement of differential production cross section for Z/γ* bosons in association with jets in p anti-p collisions at $\sqrt{s}$=1.96 TeV
Phys.Rev. D 91 (2015) 012002 doi:10.1103/PhysRevD.91.012002

30. T. Aaltonen *et al.,* The CDF collaboration
Measurement of the Single Top Quark Production Cross Section and $|V_{tb}|$ in Events with One Charged Lepton, Large Missing Transverse Energy, and Jets at CDF
Phys.Rev. Lett. 113 (2014) 261804 doi:10.1103/PhysRevLett.113.261804

31. T. Aaltonen *et al.,* The CDF collaboration
Measurement of indirect CP-violation asymmetries in $D^0 \rightarrow K^+K^-$ and $D^0 \rightarrow \pi^+\pi^-$ decays at CDF
Phys.Rev. D 90 (2014) 111103(R) doi:10.1103/PhysRevD.90.111103

32. T. Aaltonen *et al.,* The CDF collaboration
Measurements of Direct CP-Violating Asymmetries in Charmless Decays of Bottom Baryons
Phys.Rev. Lett. 113 (2014) 242001 doi:10.1103/PhysRevLett.113.242001

33. O. Adriani *et al.,* The CALET collaboration
Status and performance of the CALorimetric Electron Telescope (CALET) on the International Space Station
Nucl. Phys. B Proc. Suppl. 256-257 (2014) 225-232 doi:10.1016/j.nuclphysbps.2014.10.026

34. T. Aaltonen *et al.,* The CDF collaboration
Measurement of the Top-Quark Mass in the All-Hadronic Channel using the full CDF data set
Phys.Rev. D 90 (2014) 091101(R)

doi:10.1103/PhysRevD.90.012013

35. P.S. Marrocchesi, M.G. Bagliesi, G. Bigongiari, S. Bonechi, P. Brogi, G. Collazzuol, A. Ferri, P. Maestro, C. Piemonte, A. Sulaj, Jung-Eun Suh
Charged Particle Detection with NUV-Sensitive SiPM in a Beam of Relativistic Ions
IEEE Trans. Nucl. Sci. 61(5) (2014), Article number 2348794, pages 2786-2793 10.1109/TNS.2014.2348794

36. T. Aaltonen *et al.,* The CDF collaboration
Study of orbitally excited *B* mesons and evidence for a new $B\pi$ resonance
Phys.Rev. D 90 (2014) 012013 doi:10.1103/PhysRevD.90.012013

37. T. Aaltonen *et al.,* The CDF collaboration
Measurement of the Inclusive Leptonic Asymmetry in Top-Quark Pairs that Decay to Two Charged Leptons at CDF
Phys.Rev. Lett. 113 (2014) 042001 doi:10.1103/PhysRevLett.113.042001

38. T. Aaltonen *et al.,* The CDF collaboration
Search for new physics in trilepton events and limits on the associated chargino-neutralino production at CDF
Phys.Rev. D 90 (2014) 012011 doi:10.1103/PhysRevD.90.012011

39. T. Aaltonen *et al.,* The CDF collaboration
Observation of s-channel production of single top quarks at the Tevatron
Phys.Rev. Lett. 112 (2014) 231803 doi:10.1103/PhysRevLett.112.231803

40. T. Aaltonen *et al.,* The CDF collaboration
Evidence for s-channel Single-Top-Quark Production in Events with one Charged Lepton and Two Jets at CDF
Phys.Rev. Lett. 112 (2014) 231804 doi:10.1103/PhysRevLett.112.231804

41. T. Aaltonen *et al.,* The CDF collaboration
Search for s-channel Single Top Quark Production in Events with Missing Energy Plus Jets in p-pbar collisions at $\sqrt{s}$=1.96 TeV
Phys.Rev. Lett. 112 (2014) 231805 doi:10.1103/PhysRevLett.112.231805

42. T. Aaltonen *et al.,* The CDF collaboration
Measurement of the ZZ production cross section using the full CDF II data set
Phys.Rev. D 89 (2014) 112001 doi:10.1103/PhysRevD.89.112001

43. T. Aaltonen *et al.,* The CDF collaboration
Measurement of B(t→Wb)/B(t→Wq) in Top-Quark-Pair Decays Using Dilepton Events and the Full CDF Run II Data Set
Phys.Rev. Lett. 112 (2014) 221801 doi:10.1103/PhysRevLett.112.221801

44. T. Aaltonen *et al.,* The CDF collaboration
Study of Top-Quark Production and Decays involving a Tau Lepton at CDF and Limits on a Charged-Higgs Boson Contribution
Phys.Rev. D 89 (2014) 091101(R) doi:10.1103/PhysRevD.89.091101

45. T. Aaltonen *et al.,* The CDF collaboration
Invariant-mass distribution of jet pairs produced in association with a W boson in p anti-p collisions at sqrt(s)=1.96 TeV using the full CDF Run II data set
Phys.Rev. D 89 (2014) 092001 doi:10.1103/PhysRevD.89.092001

46. T. Aaltonen *et al.,* The CDF collaboration
Mass and lifetime measurements of bottom and charm baryons in p-pbar collisions at √s=1.96 TeV
Phys.Rev. D 89 (2014) 072014 doi:10.1103/PhysRevD.89.072014

47. T. Aaltonen *et al.,* The CDF collaboration
Indirect measurement of $\sin^2\theta_W$(or M_W) using $\mu^+\mu^-$ pairs from γ*/Z-bosons produced in p anti-p collisions at a center-of-momentum energy of 1.96 TeV
Phys.Rev. D 89 (2014) 072005 doi:10.1103/PhysRevD.89.072005

48. T. Aaltonen *et al.,* The CDF collaboration
A precise measurement of the W-boson mass with the Collider Detector at Fermilab
Phys.Rev. D 89 (2014) 072003 doi:10.1103/PhysRevD.89.072003

49. T. Aaltonen *et al.,* The CDF and D0 collaboration
Combination of measurements of the top-quark pair production cross section from the Tevatron Collider
Phys.Rev. D 89 (2014) 072001 doi:10.1103/PhysRevD.89.072001

50. T. Aaltonen *et al.,* The CDF collaboration
First search for exotic Z Boson Decays into Photons and Neutral Pions in hadron collisions
Phys.Rev. Lett. 112 (2014) 111803 doi:10.1103/PhysRevLett.112.111803

51. A.M. Galper *et al.,*
Characteristics of the GAMMA-400 gamma-ray telescope for searching for dark matter signatures
Bull.Russ.Acad.Sci.Phys. 77 (2013) 1339-1342 doi:10.3103/S1062873813110105

52. T. Aaltonen *et al.,* The CDF collaboration
Observation of D^0 D^0-bar mixing using the CDF II detector
Phys.Rev. Lett. 111 (2013) 231802 doi:10.1103/PhysRevLett.111.231802

53. T. Aaltonen *et al.,* The CDF collaboration
Production of K^0_S, $K^{*\pm}(892)$ and $\phi^0(1020)$ in minimum bias events and K^0_S and Λ^0 in jets in p-pbar collisions at √s=1.96 TeV
Phys.Rev. D 88 (2013) 092005 doi:10.1103/PhysRevD.88.092005

54. T. Aaltonen *et al.,* The CDF collaboration
Search for a dijet resonance in events with jets and missing transverse energy in p-pbar collisions at √s=1.96 TeV
Phys.Rev. D 88 (2013) 092004 doi:10.1103/PhysRevD.88.092004

55. T. Aaltonen *et al.,* The CDF collaboration
Direct Measurement of the Total Decay Width of the Top Quark
Phys.Rev. Lett. 111 (2013) 202001 doi:10.1103/PhysRevLett.111.202001

56. T. Aaltonen *et al.,* The CDF collaboration
Search for the production of ZW and ZZ boson pairs decaying into charged leptons and jets in proton-antiproton collisions at sqrt(s)=1.96 TeV
Phys.Rev. D 88 (2013) 092002 doi:10.1103/PhysRevD.88.092002

57. T. Aaltonen *et al.,* The CDF collaborations
Measurement of the top-quark pair production cross-section in events with two leptons and bottom-quark jets using the full CDF data set
Phys.Rev. D 88 (2013) 091103 doi:10.1103/PhysRevD.88.091103

58. T. Aaltonen *et al.,* The CDF collaboration
Differential cross section $d\sigma/d(\cos\theta_t)$ for top-quark pair production in p anti-p collisions at $\sqrt{s}$=1.96
Phys.Rev. Lett. 111 (2013) 182002 doi:10.1103/PhysRevLett.111.182002

59. T. Aaltonen *et al.,* The CDF collaboration
Measurement of the leptonic asymmetry in t tbar events produced in p anti-p collisions at $\sqrt{s}$=1.96 TeV
Phys.Rev. D 88 (2013) 072003 doi:10.1103/PhysRevD.88.072003

60. T. Aaltonen *et al.,* The CDF collaboration
Erratum: Indirect measurement of $\sin^2\theta_W(M_W)$ using e^+e^- pairs in theZ-boson region with p anti-p collisions at a center-of-momentum energy of 1.96 TeV [Phys.Rev. D 88, 072002 (2013)]
Phys.Rev. D 88 (2013) 079905 doi:10.1103/PhysRevD.88.079905

61. T. Aaltonen *et al.,* The CDF collaboration
Indirect measurement of $\sin^2\theta_W(M_W)$ using e^+e^- pairs in theZ-boson region with p anti-p collisions at a center-of-momentum energy of 1.96 TeV
Phys.Rev. D 88 (2013) 072002 doi:10.1103/PhysRevD.88.072002

62. T. Aaltonen *et al.,* The CDF collaboration
Evidence for a bottom baryon resonance Λ^{*0}_b in CDF data
Phys.Rev. D 88 (2013) 071101 doi:10.1103/PhysRevD.88.071101

63. T. Aaltonen *et al.,* The CDF and D0 collaborations
Combination of CDF and D^0 W-Boson Mass Measurements
Phys.Rev. D 88 (2013) 052018 doi:10.1103/PhysRevD.88.052018

64. T. Aaltonen *et al.,* The CDF and D0 collaborations
Higgs Boson Studies at the Tevatron
Phys.Rev. D 88 (2013) 052014 doi:10.1103/PhysRevD.88.052014

65. T. Aaltonen *et al.,* The CDF collaboration
Combination of searches for the Higgs boson using the full CDF data set
Phys.Rev. D 88 (2013) 052013 doi:10.1103/PhysRevD.88.052013

66. T. Aaltonen *et al.,* The CDF and D0 collaborations
Searches for the Higgs boson decaying to $W^+ W^- \rightarrow l^+ \nu\, l^- \bar{\nu}$ with the CDF II detector
Phys.Rev. D 88 (2013) 052012 doi:10.1103/PhysRevD.88.052012

67. N. Mori, O. Adriani, A. Basti, G. Bigongiari, L. Bonechi, S. Bonechi, M. Bongi, S. Bottai, P. Brogi, R. D'Alessandro, S. Detti, P. Lenzi, P. Maestro, P.S. Marrocchesi, P. Papini, P. Spillantini, O. Starodubtsev, A. Sulaj, E. Vannuccini
Homogeneous and isotropic calorimetry for space experiments
Nucl. Instr. And Meth. A 732 (2013) 311-315

68. T. Aaltonen *et al.,* The CDF collaboration
Signature-based search for delayed photons in exclusive photon plus missing transverse energy events from p anti-p collisions with $\sqrt{s}$=1.96 TeV
Phys.Rev. D 88 (2013) 031103(R) doi:10.1103/PhysRevD.88.031103

69. E. Mocchiutti *et al.*, **The GAMMA-400 Space Experiment: Gammas, Electrons and Nuclei Measurements**
Nucl.Phys.Proc.Suppl. 239-240 (2013) 204-209

70. T. Aaltonen *et al.,* The CDF collaboration
Exclusion of exotic top-like quarks with -4/3 electric charge using jet-charge tagging in single-lepton ttbar events at CDF
Phys.Rev. D 88 (2013) 032003 doi:10.1103/PhysRevD.88.032003

71. T. Aaltonen *et al.,* The CDF collaboration
Measurement of the cross section for direct-photon production in association with a heavy quark in p anti-p collisions at $\sqrt{s}$=1.96
Phys.Rev. Lett. 111 (2013) 042003 doi:10.1103/PhysRevLett.111.042003

72. T. Aaltonen *et al.,* The CDF collaboration
Search for the Higgs boson in the all-hadronic final state using the full CDF data set
JHEP 02(2013) 004 doi:10.1007/JHEP02(2013)004

73. T. Aaltonen *et al.,* The CDF collaboration
Search for pair production of strongly-interacting particles decaying to pairs of jets in p anti-p collisions at $\sqrt{s}$=1.96
Phys.Rev. Lett. 111 (2013) 031802 doi:10.1103/PhysRevLett.111.031802

74. T. Aaltonen *et al.,* The CDF collaboration
Top-quark mass measurement in events with jets and missing transverse energy using the full CDF data set
Phys.Rev. D 88 (2013) 011101 doi:10.1103/PhysRevD.88.011101

75. T. Aaltonen *et al.,* The CDF collaboration
W boson polarization measurement in t anti-t dilepton channel using CDF II detector
Phys. Lett. B 722 (2013) 48-54 10.1016/j.physletb.2013.03.032

76. T. Aaltonen *et al.,* The CDF collaboration
Measurement of R= $\mathcal{B}(t\to Wb)/\mathcal{B}(t\to Wq)$ in Top-quark-pair Decays using Lepton+jets events and the Full CDF Run II Data set
Phys.Rev. D 87 (2013) 111101 doi:10.1103/PhysRevD.87.111101

77. T. Aaltonen *et al.,* The CDF collaboration
Search for Supersymmetry with Like-Sign Lepton-Tau Events at CDF
Phys.Rev. Lett. 110 (2013) 201802 doi:10.1103/PhysRevLett.110.201802

78. T. Aaltonen *et al.,* The CDF collaboration
Measurement of the top quark forward-backward production asymmetry and its dependence on event kinematic properties
Phys.Rev. D 87 (2013) 092002 doi:10.1103/PhysRevD.87.092002

79. C. Adloff *et al.,*
The AMS-02 lead-scintillating fibres Electromagnetic Calorimeter
Nucl. Instr. And Meth. A 714 (2013) 147-154

80. T. Aaltonen *et al.,* The CDF collaboration
Search for $B_s\to\mu\mu$ and $B_d\to\mu\mu$ decays with the full CDF Run II data set
Phys.Rev. D 87 (2013) 072003 doi:10.1103/PhysRevD.87.072003

81. A.M. Galper *et al.*, **Design and performance of the GAMMA-400 gamma-ray telescope for dark matter searches**
AIP Conf. Proc. 1516 (2013) 288-292 doi:10.1063/1.4792586

82. T. Aaltonen *et al.,* The CDF collaboration
Search for Resonant Top-antitop Production in the Lepton Plus Jets Decay Mode Using the Full CDF Data Set.
Phys.Rev. Lett. 110 (2013) 121802 doi:10.1103/PhysRevLett.110.121802

83. T. Aaltonen *et al.,* The CDF collaboration
Search for a two-Higgs-boson doublet using a simplified model in p anti-p collisions at √s=1.96 TeV
Phys.Rev. Lett. 110 (2013) 121801 doi:10.1103/PhysRevLett.110.121801

84. T. Aaltonen *et al.,* The CDF collaboration
Measurement of the mass difference between top and anti-top quarks at CDF
Phys.Rev. D 87 (2013) 052013 doi:10.1103/PhysRevD.87.052013

85. T. Aaltonen *et al.,* The CDF collaboration
Updated search for the standard model Higgs boson in events with jets and missing transverse energy using the full CDF data set.
Phys.Rev. D 87 (2013) 052008 doi:10.1103/PhysRevD.87.052008

86. T. Aaltonen *et al.,* The CDF collaboration
Measurement of the cross section for prompt isolated diphoton production using the full CDF Run II data sample.
Phys.Rev. Lett. 110 (2013) 101801 doi:10.1103/PhysRevLett.110.101801

87. T. Aaltonen *et al.,* The CDF collaboration
Measurement of the W-Boson Polarization in Top-quark Decays using the Full CDF Run II Data Set
Phys.Rev. D 87 (2013) 031104(R) doi:10.1103/PhysRevD.87.031104

88. T. Aaltonen *et al.,* The CDF collaboration
Observation of the Production of a W Boson in Association with a Single Charm Quark
Phys.Rev. Lett. 110 (2013) 071801 doi:10.1103/PhysRevLett.110.071801

89. A.M. Galper *et al.,* The GAMMA-400 collaboration
Status of the GAMMA-400 Project
Advances in Space Research 51 (2013) 297-300

90. M.Y. Kim, M.G. Bagliesi, G. Bigongiari, S. Bonechi, P.S. Marrocchesi, P. Maestro
Beam test performance of SIPM-based detectors for cosmic-ray experiments
Nucl. Instr. And Meth. A 703 (2013) 177-182

91. T. Aaltonen *et al.,* The CDF collaboration
Measurement of the B_c^- meson lifetime in the decay $B_c^- \rightarrow J/\Psi\, \pi^-$
Phys. Rev. D 87 (2013) 011101(R) doi:10.1103/PhysRevD.87.011101

92. T. Aaltonen *et al.,* The CDF collaboration
Search for Scalar Top Quark Production in p anti-p collisions at √s=1.96 TeV
JHEP 10(2012) 158 doi:10.1007/JHEP10(2012)158

93. T. Aaltonen *et al.,* The CDF collaboration
Search for a heavy vector boson decaying to two gluons in p anti-p collisions at √s=1.96 TeV
Phys.Rev. D 86 (2012) 112002 doi:10.1103/PhysRevD.86.112002

94. T. Aaltonen *et al.,* The CDF collaboration

Search for a Higgs boson in the diphoton final state using the full CDF data set from proton-antiproton collisions at √s=1.96 TeV
Phys. Lett. B 717 (2012) 173-181 10.1016/j.physletb.2012.08.051

95. T. Aaltonen *et al.,* The CDF collaboration
Search for the Standard Model Higgs Boson Produced in Association with a Z Boson in 7.9 fb-1 of p anti-p collisions at √s=1.96 TeV using the CDF II detector
Phys. Lett. B 715 (2012) 98-104 10.1016/j.physletb.2012.07.045

96. T. Aaltonen *et al.,* The CDF collaboration
Measurement of the Top Quark Mass in the All-Hadronic Mode at CDF
Phys. Lett. B 714 (2012) 24-31 10.1016/j.physletb.2012.06.007

97. T. Aaltonen *et al.,* The CDF collaboration
Search for Neutral Higgs Bosons in Events with Multiple Bottom Quarks at the Tevatron.
Phys.Rev. D 86 (2012) 091101R doi:10.1103/PhysRevD.86.091101

98. T. Aaltonen *et al.,* The CDF collaboration
Measurement of the Top-quark Mass and the t-tbar Cross Section in the Hadronic τ+Jets Decay Channel at √s=1.96 TeV
Phys.Rev. Lett. 109 (2012) 192001 doi:10.1103/PhysRevLett.109.192001

99. T. Aaltonen *et al.,* The CDF collaboration
Search for the standard model Higgs Boson produced in association with top quarks using the full CDF data set
Phys.Rev. Lett. 109 (2012)181802 doi:10.1103/PhysRevLett.109.181802

100. T. Aaltonen *et al.,* The CDF collaboration
Measurement of the Bottom-Strange Meson Mixing Phase in the Full CDF Data Set
Phys.Rev. Lett. 109 (2012)171802 doi:10.1103/PhysRevLett.109.171802

101. T. Aaltonen *et al.,* The CDF collaboration
Novel inclusive search for the Higgs boson in the four-lepton final state at CDF.
Phys.Rev. D 86 (2012) 072012 doi:10.1103/PhysRevD.86.072012

102. T. Aaltonen *et al.,* The CDF and D0 collaborations
Combination of the top-quark mass measurements from the Tevatron collider.
Phys.Rev. D 86 (2012) 092003 doi:10.1103/PhysRevD.86.092003

103. T. Aaltonen *et al.,* The CDF collaboration
Precision Top-Quark Mass Measurement at CDF
Phys.Rev. Lett. 109 (2012) 152003 doi:10.1103/PhysRevLett.109.152003

104. T. Aaltonen *et al.,* The CDF collaboration
Transverse momentum cross section of e+e- pairs in the Z-boson region from p anti-p collisions at √s=1.96 TeV
Phys. Rev. D 86 (2012) 052010 doi:10.1103/PhysRevD.86.052010

105. T. Aaltonen *et al.,* The CDF collaboration
Search for the standard model Higgs boson decaying to a b-bbar pair in events with no charged leptons and large missing transverse energy using the full CDF data set.
Phys.Rev. Lett. 109 (2012) 111805 doi:10.10.1103/PhysRevLett.109.111805

106. T. Aaltonen *et al.,* The CDF collaboration

Search for the standard model Higgs boson decaying to a bb pair in events with one charged lepton and large missing transverse energy using the full CDF data set.
Phys.Rev. Lett. 109 (2012) 111804 doi:10.10.1103/PhysRevLett.109.111804

107. T. Aaltonen *et al.,* The CDF collaboration
Search for the standard model Higgs boson decaying to a bb pair in events with two oppositely-charged leptons using the full CDF data set.
Phys.Rev. Lett. 109 (2012) 111803 doi:10.10.1103/PhysRevLett.109.111803

108. T. Aaltonen *et al.,* The CDF collaboration
Combined search for the standard model Higgs boson decaying to a bb pair using the full CDF data set.
Phys.Rev. Lett. 109 (2012) 111802 doi:10.10.1103/PhysRevLett.109.111802

109. T. Aaltonen *et al.,* The CDF collaboration
Measurement of the difference of CP-violating asymmetries in $D^0 \to K^+K^-$ and $D^0 \to \pi^+\pi^-$ decays at CDF.

Phys.Rev. Lett. 109 (2012) 111801 doi:10.10.1103/PhysRevLett.109.111801

110. T. Aaltonen *et al.,* The CDF collaboration
Measurement of the WZ Cross Section and Triple Gauge Couplings in p anti-p Collisions at $\sqrt{s}$=1.96 TeV
Phys.Rev. D 86, 031104 (2012) doi:10.1103/PhysRevD.86.031104

111. T. Aaltonen *et al.,* The CDF collaboration
Search for the standard model Higgs boson produced in association with a W- boson with 7.5 fb^{-1} integrated luminosity at CDF
Phys.Rev. D 86, 032011 (2012) doi:10.1103/PhysRevD.86.032011

112. T. Aaltonen *et al.,* The CDF collaboration
Diffractive Dijet Production in p anti-p collisions at $\sqrt{s}$=1.96 TeV
Phys.Rev. D 86, 032009 (2012) doi:10.1103/PhysRevD.86.032009

113. T. Aaltonen *et al.,* The CDF collaboration
Measurement of CP-violation asymmetries in D^0 to $K_s^0 \pi^+ \pi^-$
Phys.Rev. D 86, 032007 (2012) doi:10.1103/PhysRevD.86.032007

114. T. Aaltonen *et al.,* The CDF and D0 collaboration
Evidence for a Particle Produced in Association with Weak Bosons and Decaying to a Bottom-Antibottom Quark Pair in Higgs Boson Searches at the Tevatron
Phys.Rev. Lett. 109, 071804 (2012) doi:10.1103/PhysRevLett.109.071804

115. T. Aaltonen *et al.,* The CDF collaboration
Search for a Heavy Particle Decaying to a Top Quark and a Light Quark in p anti-p Collisions at $\sqrt{s}$=1.96 TeV
Phys.Rev. Lett. 108, 211805 (2012) doi:10.1103/PhysRevLett.108.211805

116. T. Aaltonen *et al.,* The CDF collaboration
Search for Dark Matter in Events with One Jet and Missing Transverse Energy in p anti-p Collisions at $\sqrt{s}$=1.96 TeV
Phys.Rev. Lett. 108, 211804 (2012) doi:10.1103/PhysRevLett.108.211804

117. T. Aaltonen *et al.,* The CDF collaboration
Evidence for the charmless annihilation decay mode $B_s^0 \to \pi^+\pi^-$
Phys.Rev.Lett. 108, 211803 (2012) doi:10.1103/PhysRevLett.108.211803

118. T. Aaltonen *et al.,* The CDF collaboration
Search for a Dark Matter Candidate Produced in Association with a Single Top Quark in p anti-p Collisions at √s=1.96 TeV
Phys.Rev. Lett. 108, 201802 (2012) doi:10.1103/PhysRevLett.108.201802

119. T. Aaltonen *et al.,* The CDF collaboration
Measurement of the masses and widths of the bottom baryons Σ_b^{+-} and Σ_b^{*+-}
Phys. Rev. D 85, 092011 (2012) doi:10.1103/PhysRevD.85.092011

120. T. Aaltonen *et al.,* The CDF collaboration
Measurement of $B^0_s \rightarrow D_s^{(*)+} D_s^{(*)-}$ Branching Ratios
Phys.Rev. Lett. 108, 201801 (2012) doi:10.1103/PhysRevLett.108.201801

121. T. Aaltonen *et al.,* The CDF collaboration
Search for a Low-Mass Standard Model Higgs Boson in the $\tau\tau$ Decay Channel in p anti-p Collisions at √s=1.96 TeV
Phys. Rev. Lett. 108, 181804 (2012) doi:10.1103/PhysRevLett.108.181804

122. T. Aaltonen *et al.,* The CDF collaboration
Search for anomalous production of multiple leptons in association with W and Z bosons at CDF
Phys.Rev. D85, 092001 (2012) doi:10.1103/PhysRevD.85.092001

123. T. Aaltonen *et al.,* The CDF and D0 collaboration
Combination of CDF and D0 measurements of the *W* boson helicity in top quark decays.
Phys.Rev. D 85, 071106 (2012) doi:10.1103/PhysRevD.85.071106

124. T. Aaltonen *et al.,* The CDF collaboration
Measurement of the CP-Violating phase β_s in $B^0_s \rightarrow J/\Psi\,\phi$ Decays with the CDF II Detector
Phys.Rev. D 85, 072002 (2012) doi:10.1103/PhysRevD.85.072002

125. T. Aaltonen *et al.,* The CDF collaboration
Precise measurement of the W-boson mass with the CDF II detector.
Phys.Rev. Lett.108, 151803 (2012) doi:10.1103/PhysRevLett.108.151803

126. T. Aaltonen *et al.,* The CDF collaboration
Measurement of Angular Distributions of Muons From Upsilon Meson Decays in p anti-p collisions at √s=1.96 TeV
Phys. Rev. Lett.108, 151802 (2012) doi:10.1103/PhysRevLett.108.151802

127. P. Maestro, M.G. Bagliesi, G. Bigongiari, S. Bonechi, M.Y. Kim, P.S. Marrocchesi
Beam test performance of a pixelated silicon array for the charge identification of cosmic rays
Nucl. Instr. And Meth. A679 (2012) 7-13 doi:10.1016/j.nima.2012.03.028

128. T. Aaltonen *et al.,* The CDF collaboration
Measurement of ZZ production in leptonic final states at √s=1.96 TeV at CDF
Phys.Rev. Lett.108, 101801 (2012) doi:10.1103/PhysRevLett.108.101801

129. T. Aaltonen *et al.,* The CDF collaboration
Observation of Exclusive $\gamma\gamma$ Production in p anti-p Collisions at √s=1.96 TeV
Phys.Rev. Lett.108, 081801 (2012) doi:10.1103/PhysRevLett.108.081801

130. T. Aaltonen *et al.,* The CDF collaboration
Search for Standard Model Higgs Boson Production in Association with a W Boson Using a Matrix Element

Technique at CDF in p anti-p collisions at √s=1.96 TeV
Phys.Rev. D85, 072001 (2012) doi:10.1103/PhysRevD.85.072001

131. T. Aaltonen *et al.,* The CDF collaboration
Measurement of the branching fraction $B(\Lambda_b^0 \to \Lambda_c^+ \pi^-\pi^+\pi^-)$ at CDF
Phys.Rev. D85, 032003 (2012) doi:10.1103/PhysRevD.85.032003

132. T. Aaltonen *et al.,* The CDF collaboration
Measurement of the CP-violating asymmetries in $D^0 \to \pi^+\pi^-$ and $D^0 \to K^+K^-$ decays at CDF
Phys.Rev. D 85, 012009 (2012) doi:10.1103/PhysRevD.85.012009

133. T. Aaltonen *et al.,* The CDF collaboration
Search for high-mass resonances decaying into ZZ in p anti-p collisions at √s=1.96 TeV
Phys. Rev. D 85, 012008 (2012) doi:10.1103/PhysRevD.85.012008

134. T. Aaltonen *et al.,* The CDF collaboration
Search for new phenomena in events with two Z bosons and missing transverse momentum in p anti-p collisions at √s=1.96 TeV
Phys.Rev. D 85, 011104 (2012) doi:10.1103/PhysRevD.85.011104

135. T. Aaltonen *et al.,* The CDF collaboration
Search for resonant production of tt-bar pairs in 4.8 fb^{-1} of integrated luminosity of p anti-p collisions at √s=1.96 TeV
Phys. Rev. D 84, 072004 (2011) doi:10.1103/PhysRevD.84.072004

136. P.S. Marrocchesi, O. Adriani, Y. Akaike, M.G. Bagliesi, A. Basti, G. Bigongiari, S. Bonechi, M. Bongi, M.Y. Kim, T. Lomtadze, P. Maestro, T. Niita, S. Ozawa, Y. Shimizu, S. Torii
Beam test performance of a scintillator-based detector for the charge identification of relativistic ions
Nucl. Instr. And Meth. A659 (2011) 477-483 doi:10.1016/j.nima.2011.08.034

137. M.G. Bagliesi, C. Avanzini, G. Bigongiari, R. Cecchi, M.Y. Kim, P. Maestro, P.S. Marrocchesi, F. Morsani
A custom front-end ASIC for the readout and timing of 64 SiPM photosensors
Nucl. Phys. B (Proc. Suppl.) 215 (2011) 344-348 doi:10.1016/j.nuclphysbps.2011.04.049

138. K. Batkov, G. Bigongiari, P. Maestro, P.S. Marrocchesi, M.Y. Kim, R. Zei
Direct measurements of cosmic-ray energy: the kinematical method revisited
Astroparticle physics 35 (2011) 50-61 doi:10.1016/j.astropartphys.2011.06.002

139. P.S. Marrocchesi, M.G. Bagliesi, K. Batkov, G. Bigongiari, M.Y. Kim, P. Maestro
An high resolution FDIRC for the measurement of the cosmic-ray isotopic abundances
Astroparticle physics 35 (2011) 21-27 doi:10.1016/j.astropartphys.2011.05.003

140. Y.S. Yoon *et al.,* **Cosmic-ray proton and helium spectra from the first CREAM flight**
The Astrophysical Journal 728:122 (8pp), 2011 doi:10.1088/0004-637X/728/2/122

141. H.S. Ahn *et al.,* **Measurements of the Relative Abundances of High-energy Cosmic-ray Nuclei in the TeV/Nucleon Region**
The Astrophysical Journal 715 (2010) 1400-1407 doi:10.1088/0004-637X/715/2/1400

142. H.S. Ahn *et al.,* **Discrepant hardening observed in cosmic-ray elemental spectra**
The Astrophysical Journal Letters 714 (2010) L89-L93 doi:10.1088/2041-8205/714/1/L89

143. M.Y. Kim *et al.,* **Scintillation and Cherenkov light detection with a 3 mm x 3mm Silicon PhotoMultiplier**
Nucl. Phys. B (Proc. Suppl.) 197 (2009) 325-330 doi:10.1016/j.nuclphysbps.2009.10.096

144. H.S. Ahn *et al.,* **Energy spectra of cosmic-ray nuclei at high energies**
The Astrophysical Journal 707 (2009) 593-603 doi:10.1088/0004-637X/707/1/593

145. P. Maestro *et al.,* **Measurements of cosmic-ray energy spectra with the 2nd CREAM flight**
Nucl. Phys. B (Proc. Suppl.) 196 (2009) 239-242

146. T. Tamura et al., **CALET Mission for the Observation of Cosmic Rays on the International Space Station**
Transactions of Space Technology Japan Volume 7, Issue ists26, pp. Ph_23-Ph_28 (2009)

147. P.S. Marrocchesi *et al.,* **Active control of the gain of a 3 mm × 3 mm Silicon PhotoMultiplier**
Nucl. Instr. And Meth. A602 (2009) 391-395

148. H.S. Ahn *et al.,* **The Cosmic Ray Energetics And Mass (CREAM) timing charge detector**
Nucl. Instr. And Meth. A602 (2009) 525-536

149. E.S. Seo *et al.,* **Approaching the Spectral Knee in High Energy Cosmic Rays with CREAM**
J. Phys. Soc. Jpn. 78 (2009) Suppl. A, 63-67

150. P.S. Marrocchesi *et al.,* **Silicon array for cosmic-ray composition measurements in CALET**
J. Phys. Soc. Jpn. 78 (2009) Suppl. A, 181-183

151. H.S. Ahn *et al.*, **Measurements of cosmic ray secondary nuclei at high energy with the first flight of the CREAM balloon-borne experiment**
Astroparticle Physics 30 (2008) 133-141

152. E.S. Seo *et al.,* **Approaching the Knee with Direct Measurements**
Nucl. Phys. B (Proc. Suppl.) 175-176 (2008) 155-161

153. S. P. Wakely *et al.,* **First measurements of cosmic-ray nuclei at high energy with CREAM**
Advances in Space Research 42, Issue 3 (2008) 403-409

154. E.S. Seo *et al.,* **CREAM: 70 days of flight from 2 launches in Antarctica**
Advances in Space Research 42, Issue10 (2008) 1656-1663

155. P.S. Marrocchesi *et al.,* **Preliminary result from the second flight of CREAM**
Advances in Space Research 41, Issue 12 (2008) 2002-2009

156. S. Torii *et al.,* **The CALET mission on the ISS**
Proc. SPIE Vol. 7021, 702114 (2008); DOI:10.1117/12.788524

157. H.S. Ahn *et al.,* **The Cosmic Ray Energetics And Mass (CREAM) experiment**
Nucl. Instr. And Meth. A579 (2007) 1034-1053

158. P.S. Marrocchesi *et al.,* **A Large Area Silicon Pixel Array for the Identification of Relativistic Nuclei in Cosmic Ray Experiments**
Nucl. Instr. And Meth. A572 (2007) 316-318

159. S. Coutu *et al.,* **Design and performance in the first flight of the Transition Radiation Detector and Charge Detector of the CREAM balloon instrument**
Nucl. Instr. And Meth. A572 (2007) 485-487

160. M.G. Bagliesi *et al.,* **Front-end electronics with large dynamic range for space-borne experiments**
Nucl. Phys. B (Proc. Suppl.) 172 (2007) 156-158

161. M.Y. Kim *et al.,* **Development of a large area silicon pad detector for the identification of cosmic ions**
Nucl. Phys. B (Proc. Suppl.) 172 (2007) 162-164

162. S. Torii *et al.,* **The CALET experiment on the ISS**
Nucl. Phys. B (Proc. Suppl.) 166 (2007) 43-49 SONO CITATO IN CALET COLL. ???

163. S. Nam *et al.,* **Performance of a Dual Layer Silicon Charge Detector During CREAM Balloon Flight**
IEEE Trans. Nucl. Sci. 54(5) (2007), 1743-1747

164. I.H. Park *et al.,* **Silicon charge detector for the CREAM experiment**
Nucl. Instr. and Meth. A570 (2007) 286-291

165. M.H. Lee *et al.,* **The CREAM calorimeter: Performance in Tests and Flights**
AIP Conf. Proc. 867, (2006) 167-174

166. Castellina *et al.,* **The CREAM balloon experiment**
Mem. S.A.It. Suppl. Vol. 9 (2006) 385

167. N.H. Park *et al.,* **The first flight of the CREAM silicon charge detector**
Journal of the Korean Physical Society , Vol. 49, No. 2 , August 2006, pp. 815-818

168. O. Ganel *et al.,* **CREAM – Pushing the high energy frontier of directly measured Cosmic Rays**
Czech. J. Phys. 56, A301-312, 2006

169. H.S. Ahn *et al.,* **Performance of CREAM Calorimeter: Results of Beam Tests**
Nucl. Phys. B (Proc. Suppl.) 150 (2006) 272-275

170. S.Y. Zinn *et al.,* **Design, Implementation and Performance of CREAM Data Acquisition Software**
Nucl. Phys. B (Proc. Suppl.) 150 (2006) 304-307

171. S. Torii *et al.,* **Development of front-end electronics with large dynamic range for space applications**
Nucl. Phys. B (Proc. Suppl.) 150 (2006) 390-393

172. P.S. Marrocchesi, P. Maestro, **Cacciatori di raggi cosmici**
Le Scienze 446 (2005) 60-69

173. P.S. Marrocchesi *et al.*, **Construction and test of a Tungsten/Sci-Fi imaging calorimeter for the CREAM Experiment**
Nucl. Instr. And Meth. A535 (2004) 143-146

174. P.S. Marrocchesi *et al.*, **Construction and test of a scintillator hodoscope for the CREAM experiment**
Nucl. Phys. B (Proc. Suppl.) 134 (2004) 75-77

175. M.G. Bagliesi *et al.*, **Low energy beam test results of a calorimeter prototype for the CREAM experiment**
Nucl. Phys. B (Proc. Suppl.) 125 (2003) 358-362

176. F. Cadoux *et al.*, **The AMS-02 electromagnetic calorimeter**
Nucl. Phys. B (Proc. Suppl.) 113 (2002) 159-165

177. G. Valle *et al.*, **Continuum gamma spectra from neutralino annihilation**
Nucl. Phys. B (Proc. Suppl.) 113 (2002) 186-192

178. F. Cervelli *et al.*, **A reduced scale e.m. calorimeter prototype for the AMS-02 experiment**

Nucl. Instr. and Meth. A490 (2002), 132-139

179. M.G. Bisogni *et al.*, **Experimental test of a new technique of background suppression in digital mammography**
Nucl. Instr. and Meth. A478 (2002), 95-97

180. M.A. Ciocci *et al.*, **A proof-of-principle apparatus for scattering suppression in digital mammography**
Proc. SPIE Vol. 4508 (2001), 50-57

181. S.R. Amendolia *et al.*, **Performance of a medical imaging system for photons in the 60-140 keV energy range**
Nucl. Instr. and Meth. A461 (2001), 422-424

182. S. Bottari *et al.*, **Study of a new scatter rejection technique in digital radiography**
Nucl. Instr. and Meth. A461 (2001), 410-412

183. P. Maestro, **Optical survey of a lead scintillating fiber calorimeter by digital imaging techniques**
Nucl. Instr. and Meth. A461 (2001), 384-385

184. E.Bertolucci *et al.*, **Detection performance of SI GaAs detectors for nuclear medicine**
Nucl. Instr. and Meth. A460 (2001), 123-126

185. S.R. Amendolia *et al.*, **Test of a GaAs-based pixel device for digital mammography**
Nucl. Instr. and Meth. A460 (2001), 50-54

186. S.R. Amendolia *et al.*, **Low contrast imaging with a GaAs pixel digital detector**
IEEE Trans. Nucl. Sci. 47(4) (2000), 1478-1482

187. S.R. Amendolia *et al.*, **GaAs pixel detector with integrated readout for digital mammography**
AIP Conf. Proc. 536, (2000) 381-400

188. S.R. Amendolia *et al.*, **GaAs detectors optimization for different medical imaging application**
Nucl. Instr. and Meth. A434 (1999), 14-17

189. E. Bertolucci *et al.*, **GaAs pixel radiation detectors as an autoradiography tool for genetic studies**
Nucl. Instr. and Meth. A422 (1999), 242-246

190. S.R. Amendolia *et al.,* **Medipix: a VLSI chip for a GaAs pixel detector for digital radiology**
Nucl. Instr. and Meth. A422 (1999), 201-205

191. S.R. Amendolia *et al.*, **A tool for mammography: CALMA**
Computer-Aided Diagnosis in Medical Imaging (1999) 299-303

192. M.G. Bisogni *et al.*, **Performance of a 4096 pixel photon counting chip**
Proc. SPIE Vol. 3445 (1998), 298-304 and CERN-EP/98-162

193. S.R. Amendolia *et al.*, **SoftHeart: a mathematical and software simulation for heart restyling**
Computers in Cardiology vol. 25 (1998) 5-8

194. S.R. Amendolia *et al.*, **Charge collection properties of SI-GaAs detectors for digital radiography**
Physica Medica 14 (Supplement 2) (1998), 17-19

Conference proceedings

1. P. Maestro, N. Mori, **Particle tracking in the CALET experiment**
   PoS(ICRC2017)208
   Proc. of 35th International Cosmic Ray Conference, Busan, Korea, July 10-20, 2017

2. A. Rappoldi *et al.,* Calocube collaboration
   CaloCube: A novel calorimeter for high-energy cosmic rays in space
   Proc. of 6th Roma International Conference on Astroparticle Physics, RICAP, Italy; 21-24 2016
   EPJ Web of Conferences 136, 02011 (2017) doi:10.1051/epjconf/201713602011

3. P. Maestro, **Cosmic rays: direct measurements** *(Rapporteur talk, invited)*
   PoS(ICRC2015)016
   Proc. of 34th International Cosmic Ray Conference, The Hague, 30 July-Aug. 6, 2015

4. N.P. Topchiev *et al.,* The GAMMA-400 collaboration
   Perspectives of the GAMMA-400 space observatory for high-energy gamma rays and cosmic rays measurements
   J.Phys.Conf.Ser. 675 (2016) 032010
   International Conference on Particle Physics and Astrophysics, ICPPA 2015, Moscow, Russia, 5-10 Oct. 2015

5. N.P. Tochiev *et al.,* The GAMMA-400 collaboration
   The GAMMA-400 gamma-ray telescope for precision gamma-ray emission investigations
   J.Phys.Conf.Ser. 675 (2016) 032009
   International Conference on Particle Physics and Astrophysics, ICPPA 2015, Moscow, Russia, 5-10 Oct. 2015

6. P. Brogi, P.S. Marrocchesi, P. Maestro, N. Mori, **CALET measurements with cosmic nuclei: expected performances of tracking and charge identification**
   PoS(ICRC2015)595
   Proc. of 34th International Cosmic Ray Conference, The Hague, 30 July-Aug. 6, 2015

7. P.S. Marrocchesi *et al.*, **Digital FDIRC: a Focused Differential Internal Reflection Cherenkov imaged by SiPM arrays**
   PoS(ICRC2015)619
   Proc. of 34th International Cosmic Ray Conference, The Hague, 30 July-Aug. 6, 2015

8. O. Adriani *et al.,* CALET collaboration,
   The CALorimetric Electron Telescope (CALET) for high-energy astroparticle physics on the International Space Station
   Proc. of 3rd International Conference on New Frontiers in Physics, ICNFP 2014; Kolymbari, Crete; Greece; 28 July 2014 through 6 August 2014
   EPJ Web of Conferences 95, 04056 (2015) doi:10.1051/epjconf/20159504056

9. O. Adriani *et al.*, **The CALorimetric Electron Telescope (CALET) for high-energy astroparticle physics on the International Space Station**
   J.Phys.Conf.Ser. 632 (2015) 012023 doi:10.1088/1742-6596/632/1/012023
   Proc. of 24th European Cosmic Ray Symposium (ECRS 2014), Germany, Sept. 1-5 2014.

10. M. Bongi *et al.*, **CALOCUBE: an approach to high-granularity and homogenous calorimetry for space based detectors**
    J.Phys.Conf.Ser. 587 (2015) 012029 doi:10.1088/1742-6596/587/1/012029
    Proc. of 16th International Conference on Calorimetry in High Energy Physics (CALOR 2014), Giessen, Germany,

April 6-11 2014.

11. P. Cumani *et al.* (The Gamma-400 collaboration)
Gamma-ray performance of the GAMMA-400 detector
Proc. of the Fifth International Fermi Symposium, Nagoya, Japan 20-24 Oct. 2014

12. P. Cumani *et al.* (The Gamma-400 collaboration)
The GAMMA-400 space mission
Proc. of the Fifth International Fermi Symposium, Nagoya, Japan 20-24 Oct. 2014

13. P. Maestro
The CALET mission on the International Space Station
Proc. of Vulcano Workshop 2014 "Frontier Objects in Astrophysics and Particle Physics", Vulcano, Italy, May 18-24, 2014
Frascati Phys.Ser. 58 (2014) 307

14. O. Adriani *et al.*, **Development of a 3-D cubic crystal calorimeter for space: CaloCube**
Proc. of International Conference on Calorimetry for the High Energy Frontier (CHEF 2013), p 454-459 Paris, France, April 22-25, 2013

15. S. Bonechi *et al.*, **A silicon array for cosmic-ray particle identification in space**
Proc. of 11th International Conference on Large Scale Applications and Radiation Hardness of Semiconductor Detectors, July 3-5, 2013, Firenze
PoS(RD13)022

16. P. Maestro, **Measurement of D^0-D^0bar mixing at CDF**
Proc. of LHCP 2013 – Large Hadron Collider Physics, May 13-18, 2013, Barcelona (Spain)
EPJ Web of Conferences 60, 15014 (2013) doi:10.1051/epjconf/20136015014

17. P. Maestro, **Observation of charm mixing at CDF**
Proc. of the 14th International Conference on B-Physics at Hadron Machine, April 8-12, 2013,Bologna
PoS(Beauty 2013)035 FERMILAB-CONF-13-168-PPD

18. A.A. Moiseev *et al.*, **Dark Matter Search Perspectives with GAMMA-400**
Proc. of the 33rd International Cosmic Ray Conference Rio de Janeiro (2013)

19. A.M. Galper *et al.*, **The Space-Based Gamma-Ray Telescope GAMMA-400 and Its Scientific Goals**
Proc. of the 33rd International Cosmic Ray Conference Rio de Janeiro (2013)

20. P. Maestro, **High-energy astroparticle physics with CALET**
Proc. of the 23rd European Cosmic Ray Symposium, July 3-7, 2012, Moscow, Russia
J. Phys.: Conf. Ser. **409** (2013) 012026 doi:10.1088/1742-6596/409/1/012026

21. P. Maestro, **Rare decay searches at CDF**
Proc. of the 11th International Conference on Heavy Quarks and Leptons, June 11-15, 2012, Prague, Czech Republic **PoS(HQL2012)031** CDF-Public Note 10892

22. E.S. Seo *et al.*, **Status and recent results from the CREAM experiment**
Proc. of the 12th International Conference on Advanced Technology and Particle Physics, Villa Erba (Italy), (2010)
Cosmic Rays for Particle and Astroparticle Physics, World Scientific, 281-289

23. Y. Shimizu *et al.*, **The CALET CHD for determination of nuclear charge**
Proc. of the 32nd International Cosmic Ray Conference Beijing (2011) OG1.5 Vol.6 391-394

24. E.S. Seo *et al.*, **High Energy Cosmic Ray Observations with CREAM**
Proc. of the 31st International Cosmic Ray Conference Lodz (2009) Invited, Rapporteur and Highlight Papers, Ed. M. Giller and J. Szabelski,157-162, 2010

25. P. Maestro *et al.*, **Elemental energy spectra of cosmic rays measured by CREAM-II**
Proc. of the 31st International Cosmic Ray Conference Lodz (2009) 0641

26. S. Ozawa *et al.*, **Balloon borne CALET Prototype Payload (bCALET) for Electron and Gamma-ray Observation**
Proc. of the 31st International Cosmic Ray Conference Lodz (2009) 1298

27. C. Avanzini *et al.*, **Design and characterization of a double-layered silicon charge detector for cosmic ray measurements in CALET**
Proc. of 9th International Conference on Large Scale Applications and Radiation Hardness of Semiconductor Detectors, RD09, Florence (2009) **PoS RD09:035,2009**

28. J.P. Wefel *et al.*, **The CALET space observatory for JEM-EF on the international space station**
Proc. of the 10th International Conference on Advanced Technology and Particle Physics, Villa Erba (Italy), (2008)
Cosmic Rays for Particle and Astroparticle Physics, World Scientific, 911-915

29. R. Zei *et al.*, **Preliminary measurements of carbon and oxygen energy spectra from the second flight of CREAM**
Proc. of the 30th International Cosmic Ray Conference Merida (2008) vol. 2, 23-26

30. N.H. Park *et al.*, **Relative abundances of heavy ions measured by the CREAM Silicon Charge Detector**
Proc. of the 30th International Cosmic Ray Conference Merida (2008) vol. 2, 39-42

31. E.S. Seo *et al.,* **Cosmic Ray Enegertics and Mass (CREAM) Overview**
Proc. of the 30th International Cosmic Ray Conference Merida (2008) vol. 2, 47-50

32. Y.S. Yoon *et al.*, **H and He spectra from the 2004/05 CREAM-I flight**
Proc. of the 30th International Cosmic Ray Conference Merida (2008) vol. 2, 55-58

33. H.S. Ahn *et al.*, **Elemental Spectra from the CREAM-I flight**
Proc. of the 30th International Cosmic Ray Conference Merida (2008) vol. 2, 63-66

34. S.P. Wakely *et al.*, **Measurements of High-Energy Heavy Nuclei with the CREAM-I TRD**
Proc. of the 30th International Cosmic Ray Conference Merida (2008) vol. 2, 187-190

35. P.S. Marrocchesi *et al.*, **Conceptual design of a charge identifier array for cosmic ray composition measurements in CALET**
Proc. of the 30th International Cosmic Ray Conference Merida (2008) vol. 2, 301-304

36. P.S. Marrocchesi *et al.*, **Test of front-end electronics with large dynamic range coupled to SiPM for space-based calorimetry**
Proc. of the 30th International Cosmic Ray Conference Merida (2008) vol. 2, 317-320

37. P.S. Marrocchesi *et al.*, **Beam test results of pixelated silicon sensors for the charge identification of cosmic rays**
Proc. of the 30th International Cosmic Ray Conference Merida (2008) vol. 2, 321-324

38. P. Maestro *et al.*, **Energy cross-calibration from the first CREAM flight: transition radiation detector versus**

calorimeter
Proc. of the 30th International Cosmic Ray Conference Merida (2008) vol. 2, 333-336

39. J.T. Childers *et al.*, **Timing charge and position analysis from the first CREAM flight**
Proc. of the 30th International Cosmic Ray Conference Merida (2008) vol. 2, 373-376

40. T.J. Brandt *et al.*, **Charge Identification in the CREAM Experiment**
Proc. of the 30th International Cosmic Ray Conference Merida (2008) vol. 2, 377-380

41. S.I. Mognet *et al.*, **GEANT4 Based Model of the CREAM Timing Charge Scintillation Detector**
Proc. of the 30th International Cosmic Ray Conference Merida (2008) vol. 2, 385-388

42. S. Torii *et al.*, **The CALET Mission on International Space Station**
Proc. of the 30th International Cosmic Ray Conference Merida (2008) vol2. 393-396

43. Y.S. Yoon *et al.*, **Calibration of the CREAM-I calorimeter**
Proc. of the 30th International Cosmic Ray Conference Merida (2008) vol. 2, 421-424

44. E.S. Seo *et al.,* **The Record Breaking 42-day Balloon Flight of CREAM**
Proc. of the 29th International Cosmic Ray Conference Pune (2005) vol. 3, 101-104

45. P.S. Marrocchesi *et al.,* **Beam test calibration of the balloon-borne imaging calorimeter for the CREAM experiment**
Proc. of the 29th International Cosmic Ray Conference Pune (2005) vol. 3, 309-312
e-Print Archive: *physics/0507174*

46. S. Torii *et al.,* **The CALET Mission on the International Space Station**
Proc. of the 29th International Cosmic Ray Conference Pune (2005) vol. 3, 329-332

47. I.H. Park *et al.,* **The First Flight Measurement with the CREAM Silicon Charge Detector**
Proc. of the 29th International Cosmic Ray Conference Pune (2005) vol. 3, 341-344

48. J. Yang *et al.,* **Performance of the CREAM Silicon Charge Detector during Its First Flight**
Proc. of the 29th International Cosmic Ray Conference Pune (2005) vol. 3, 345-348

49. H.S. Ahn *et al.,* **CREAM Flight Data Processing**
Proc. of the 29th International Cosmic Ray Conference Pune (2005) vol. 3, 389-392

50. S. Coutu *et al.,* **Performances of the transition radiation detector and the timing charge detector in the first flight of the CREAM instrument**
Proc. of the 29th International Cosmic Ray Conference Pune (2005) vol. 3, 393-396

51. M.H. Lee *et al.,* **Design and test of the CREAM calorimeter**
Proc. of the 29th International Cosmic Ray Conference Pune (2005) vol. 3, 413-416

52. M.H. Lee *et al.,* **Performance of the CREAM calorimeter module during its first flight of 42 days**
Proc. of the 29th International Cosmic Ray Conference Pune (2005) vol. 3, 417-420

53. Y.S. Yoon *et al.,* **Flight Operations during the First CREAM Balloon Flight**
Proc. of the 29th International Cosmic Ray Conference Pune (2005) vol. 3, 429-432

54. Y.S. Yoon *et al.,* **Design and test of the Scintillating Fiber Hodoscopes in the CREAM Instrument**
Proc. of the 29th International Cosmic Ray Conference Pune (2005) vol. 3, 433-436

55. S.-Y. Zinn *et al.,* **The data acquisition software system of the 2004/2005 CREAM experiment**
Proc. of the 29th International Cosmic Ray Conference Pune (2005) vol. 3, 437-440

56. P.S. Marrocchesi *et al.,* **Reconstruction of showers in the calorimeter during the first flight of the CREAM balloon experiment**
Proc. of the 29th International Cosmic Ray Conference Pune (2005) vol. 8, 109-112
e-Print Archive: *astro-ph/0507516*

57. E.S. Seo *et al.,* **Cosmic ray energetics and mass first flight and beyond**
Proc. of Rencontres de Moriond "Very High Energy Phenomena in Universe", La Thuile (Italy), (2005)

58. C. Adloff *et al.,* **Performance of a 3D imaging electromagnetic calorimeter for the AMS02 space experiment**
Proc. of the 11th International Conference on Calorimetry in Particle Physics, Perugia (Italy), (2004) 526-531

59. H.S. Ahn *et al.,* **Beam test calibration of the balloon-borne imaging calorimeter for the CREAM experiment**
Proc. of the 11th International Conference on Calorimetry in Particle Physics, Perugia (Italy), (2004) 532-537

60. E.S. Seo *et al.*, **CREAM for High Energy Composition Measurements**
Proc. of the 28th International Cosmic Ray Conference, Tsukuba (Japan), (2003) 2101-2104

61. L. Girard *et al.,* **Performances of the AMS-02 electromagnetic calorimeter**
Proc. of the 8th International Conference on Advanced Technology and Particle Physics, Villa Erba (Italy), (2003) 55-59

62. M.G. Bagliesi *et al.*, **A low-power high dynamic range front-end ASIC for imaging calorimeters**
Proc. of the 8th Workshop on Electronics for LHC Experiments, Colmar (France), (2002) 343-346

63. R. Kossakowski *et al.*, **Electromagnetic calorimeter for the AMS-02 experiment**
Proc. of the10th International Conference on Calorimetry in Particle Physics, Pasadena (USA), (2002) 108-113

64. F. Cervelli *et al.*, **Performances of the AMS-02 electromagnetic calorimeter**
Proc. of the 10th International Conference on Calorimetry in Particle Physics, Pasadena (USA), (2002) 114-120

65. S.R. Amendolia *et al.*, **A CAD tool for early diagnosis: massive lesion and microcalcificaton cluster detection in breast radiography**
Proc. of the 6th International Workshop on Software Engineering, Artificial Intelligence and Expert systems, Creta (Greek), (2000) 185-190

66. S.R. Amendolia *et al.*, **The CALMA project**
Proc. of the 4th International Workshop on Digital Mammography, Nijmegen (The Netherlands) (1998) 499

67. P. Maestro, **A medical imaging system based on a GaAs pixel detector readout by a single-photon counting VLSI electronics**
Proc. of PIXEL98-International Pixel Detector Workshop, Fermilab, Batavia (USA), (1998) 211-218

Other documents of scientific activity, abstracts, internal notes

1. A. Di Canto, S. Leo, P. Maestro, K. Pitts, D. Tonelli
   Measurement of effective-lifetime CP-violating asymmetry in two-body charm meson decays
   CDF-Public Note 11117

2. A. Di Canto, S. Leo, P. Maestro, K. Pitts, D. Tonelli
   Measurement of effective-lifetime CP-violating asymmetry in two-body charm meson decays
   CDF-Internal Note 11106

3. Mark Mattson, Paul Karchin, Satyajit Behari, Paolo Maestro
   Observation of D^0 D^0bar Mixing Using the CDF II Detector
   CDF-Public Note 10990

4. Mark Mattson, Paul Karchin, Satyajit Behari, Paolo Maestro
   Charm mixing ($D^0 \rightarrow K\pi$) with 9/fb
   CDF-Internal Note 10914

5. P. Azzurri, P. Barria, M.A. Ciocci, S. Donati, P. Maestro, E. Vataga
   First measurement of the relative Branching Fraction BR($\Lambda_b^0 \rightarrow \Lambda_c^+ \pi^-\pi^-\pi^+$)/($\Lambda_b^0 \rightarrow \Lambda_c^+ \pi^-$)
   CDF-Public Note 10564 http://www-cdf.fnal.gov/cdfnotes/cdf10564_BRlblc3pi_BRlblc1pi.ps

6. P. Azzurri, P. Barria, M.A. Ciocci, S. Donati, P. Maestro, E. Vataga
   Measurement of BR($\Lambda_b^0 \rightarrow \Lambda_c^+ \pi^-\pi^-\pi^+$)/($\Lambda_b^0 \rightarrow \Lambda_c^+ \pi^-$)
   CDF-Internal Note 10563 http://www-cdf.fnal.gov/cdfnotes/cdf10563_BRlblc3pi_BRlblc1pi.ps

7. P.S. Marrocchesi *et al.*, **Ion charge identification with silicon pixel detectors and scintillators**
   GSI SCIENTIFIC REPORT 2010 p. 143
   http://www.gsi.de/informationen/wti/library/scientificreport2010/

8. P. Maestro, **Calorimeter performance during the second flight of CREAM**
   Poster presentato al X Pisa meeting on Advanced Detectors , La Biodola (Isola d'Elba), 21-27 Maggio 2006

9. Yoon Y. *et al.*, **CREAM observation of January 20th solar flare**
   American Geophysical Union, Fall Meeting 2005, abstract #SH23A-0314

10. P. Maestro, **Esperimento CREAM: misura diretta della composizione spettrale dei raggi cosmici di altissima energia in Antartide**
    Programma Nazionale di Ricerche in Antartide (PNRA) - Rapporto sulla Campagna Antartica Estate Australe 2005-2006 (XXI spedizione), pag. 62

11. P. Maestro, **Esperimento CREAM: misura diretta della composizione spettrale dei raggi cosmici di altissima energia in Antartide**
    Programma Nazionale di Ricerche in Antartide (PNRA) - Rapporto sulla Campagna Antartica Estate Australe 2004-2005 (XX spedizione), pag. 57

12. P. Maestro, **Indirect Search for Dark Matter by Measurements of the Cosmic Ray Positron Spectrum with the AMS-02 experiment**
    Tesi di Dottorato, difesa nel novembre 2003 all'Università di Siena.
    AMS internal note 2004-03-05

13. P. Maestro, **A study on background rejection and e^+ and γ detection in AMS 02**
AMS internal note 2003-01-01

14. F. Cervelli *et al.* , **Analysis of ECAL 2001 test beam data**
AMS internal note 2002-11-01

15. S.R. Amendolia *et al.* , **Performance of a X-ray detection system in a 60-140 keV range**
World Congress on Medical Physics and Biomedical Engineering, vol. 27, pp. 1382-, Chicago 2000

16. S.R. Amendolia *et al.* , **The CALMA database of mammographic images: search for speculated lesions and microcalcification clusters.**
World Congress on Medical Physics and Biomedical Engineering, vol. 27, pp. 1380-, Chicago 2000

17. P. Maestro, **Study on GaAs thick detectors for medical imaging applications**
Poster presentato al 84° Congresso della Società Italiana di Fisica , Salerno, 28 Sett.-2 Ott. 1998