

**ANTONIO CAPONE
CURRICULUM VITAE**



PERSONAL INFORMATION

Name **CAPONE, Antonio**
E-mail **Antonio.capone@roma1.infn.it**
Nationality **Italy**

January 24th 2018

WORK EXPERIENCE

- From November 2001 to now
- Name and address of employer
- Occupation or position held
- Teaching activities and responsibilities

Full Professor, Research Associate for Istituto Nazionale Fisica Nucleare, Roma
Physics Department of University "La Sapienza" in Rome, Italy

Full Professor, chair of "Mechanics"

At present: teacher of "Mechanics" and "Astroparticle Physics" for the "Corso di Laurea" in Physics and "Astronomy with High energy Neutrinos" for the PHD course in Physics of University "La Sapienza", Roma.

2016 Responsible for a request of funds (funded with 9k€ by the University "La Sapienza") for a visiting professor (Prof. Manuela Vecchi) from the University of Sao Paulo (Brasil).

2016 PI of the project " Caratterizzazione e test di una sorgente acustica parametrica per la calibrazione di una rete di sensori acustici sottomarini" funded (13k€) by the University "La Sapienza".

2016 PI for an agreement with the University of Sao Paulo (Brasil) for the research project "Approccio multi-messaggero alla ricerca di sorgenti astrofisiche di Raggi Cosmici di altissima energia" funded (5.5k€) by the University "La Sapienza".

2016 Co-organizer and Editor of the 6th "Roma International Conference on Astroparticle Physics", (RICAP16, 21nd – 24th June 2016).

2015 Teacher "Astronomy with High energy Neutrinos" for the PHD course in Physics for the University of Salerno

2012-now Member of the College of the PhD school in "Physics"

2010-2012 Member of the College of the PhD school in "Astronomy, Astrophysics and Space Science"

Research activities and responsibilities

2015 PI of the project "Development of a GPU-based system for fast analysis of real time data streams" funded (10k€) by the University "La Sapienza".

2012-2015 national coordinator of the Italian INFN group "KM3" that includes the participation to the ANTARES experiment, to the KM3NeT collaboration and the continuation on NEMO activities for the construction of the Undersea Cherenkov Telescope for High Energy astrophysical Neutrinos. In the period 2001-2012 local coordinator of the ANTARES and of the NEMO Roma-group.

During December 2011, in the framework of the "Piano Operativo Nazionale Ricerca e Competitivita' 2007-2013" part of the budget (about 21 M€) for the construction of the KM3NeT neutrino telescope was provided allowing to enter in the construction phase.

2015 Chairman organizer and Editor of the 7th "Very Large Volume Neutrino Telescope 2015" Workshop, (VLVnT15, 14th – 16th Sept. 2015).

2014 Co-organizer and Editor of the 5th "Roma International Conference on Astroparticle Physics", (RICAP14, 30th September – 3rd October 2014, held in Noto,

<p>1994 - 1995</p> <ul style="list-style-type: none"> • Name and address of employer • Occupation or position held <ul style="list-style-type: none"> • Main activities and responsibilities • From Nov. 1991 to Nov. 2001 	<p>Sicily, Italy).</p> <p>2013 Chairman organizer and Editor of the 4th "Roma International Conference on Astroparticle Physics", (RICAP13, 22nd – 24th May 2013).</p> <p>2011 PI of the project "Sviluppo di una sorgente acustica compatta, basata su ceramiche piezoelettriche, per la calibrazione di una rete di sensori acustici sottomarini" funded (12k€) by the University "La Sapienza".</p> <p>2008-2012 Coordinator of the Work Packages "Industrial production for deep sea components" for the KM3NeT "Preparatory Phase" project funded by EU in the framework of 7th Frame Program.</p> <p>2006-2009 Coordinator of the Work Packages "Shore and deep-sea infrastructure" for the KM3NeT "Design Study" project funded by EU in the framework of 6th Frame Program.</p> <p>2008: Chairman, organizer and Editor of the 3rd International Workshop on the "Acoustic and Radio EeV Neutrino detection Activities", (ARENA-2008, in the period June 25th-27th, 2008).</p> <p>2007 Promoter, Chairman, organizer and Editor of the "1st Roma International Conference on Astroparticle Physics", (RICAP07, 20th -22nd June 2007).</p> <p>2006 Founder, and since then President, of the Cultural "Associazione Romana per le Astro Particelle", ARAP, (funded with the collaboration of Prof. Mario De Vincenzi and Dr. Aldo Morselli).</p> <p>2003 Principal Investigator and responsible for the project "Technologies development for the detection of Astrophysical Neutrinos in undersea Telescopes" funded by the Italian Minister of University and Research (PRIN-2003)</p> <p>Since 2001 – INFN local coordinator of the group NEMO and ANTARES for the search of High Energy Astrophysical Neutrinos.</p>
<ul style="list-style-type: none"> • Name and address of employer • Occupation or position held <ul style="list-style-type: none"> • Teaching activities and responsibilities Research activities and responsibilities 	<p>Employed as "Scientific Associate" at the European Center for Nuclear Research (CERN) being "on leave of absence" from University "La Sapienza" in Rome, Italy.</p> <p>European Center for Nuclear Research (CERN)</p> <p>Researcher</p> <p>Neutrino physics with the CHARM-II detector exposed at the SPS 400 GeV for the study of neutrino oscillation: coordinator of several data analysis groups.</p> <p>Associate Professor, on leave of absence in the period 1994-95, Research Associate for Istituto Nazionale Fisica Nucleare, Roma</p> <p>Physics Department of University "La Sapienza" in Rome, Italy</p> <p>Professor of "Physics" for the "Corso di Laurea" in "Informatics" (1991/1993)</p> <p>Teaching of "Physics" for the "Corso di Laurea" in "Informatics" (1991/1993) and "Experiments of Physics III" for the "Corso di Laurea" in Physics (1994/2001)</p> <p>1998-2001: promoter and INFN-Roma local coordinator of the project NESTOR for the realization of a submarine Cherenkov detector for High Energy Astrophysical Neutrinos. Responsible of the study of the deep-sea properties for the characterization of the deep-sea detector.</p> <p>1991-1998: Neutrino physics with the CHARM-II detector exposed at the SPS 400 GeV –proton neutrino beam.</p> <p>1994-1997: INFN national coordinator of the project NESTOR for the realization of a submarine Cherenkov detector for High Energy Astrophysical Neutrinos</p>
<ul style="list-style-type: none"> • From Nov. 1987 to Nov. 1991 • Name and address of employer • Occupation or position held <ul style="list-style-type: none"> Teaching activities and responsibilities Research activities and 	<p>Associate Professor, Research Associate for Istituto Nazionale Fisica Nucleare, Roma</p> <p>Università degli Studi della Basilicata, Potenza, Italy</p> <p>Associate Professor</p> <p>Teaching of "Physics-1" and "Institution of Theoretical Physics" for the "Corso di Laurea" in "Mathematics" and "Experiments of Physics" for the "Corso di Laurea" in "Chemistry".</p> <p>Neutrino physics with the CHARM and CHARM-II. Coordinator of several CHARM-II</p>

- responsibilities
- 1984 - 1987
- Name and address of employer
 - Occupation or position held
 - Main activities and responsibilities
- 1981 - 1983
- Name and address of employer
 - Occupation or position held
 - Main activities and responsibilities
- 1981 - 1987
- Name and address of employer
 - Occupation or position held
 - Teaching activities
 - Research activities and responsibilities
- 1976 - 1981
- Name and address of employer
 - Occupation or position held
 - Teaching activities
 - Research activities and responsibilities
- 1975 - 1976
- Name and address of employer
 - Occupation or position held
 - Teaching activities
 - Research activities and responsibilities
- 1974 - 1975
- Name and address of employer
 - Occupation or position held

analyses for the study of neutrino oscillations.

Employed as "Staff Member" at the European Center for Nuclear Research (CERN) being "on leave of absence" from University "La Sapienza" in Rome.

European Center for Nuclear Research (CERN)

Researcher

Neutrino physics with the CHARM and CHARM-II detectors exposed at the SPS 400 GeV –proton neutrino beam. Coordinator of several CHARM analyses and of the CHARM-II development, tests and construction.

Employed as "Fellow" at the European Center for Nuclear Research (CERN) being "on leave of absence" from University "La Sapienza" in Rome, Italy.

European Center for Nuclear Research (CERN)

Researcher

Neutrino physics with the CHARM detector exposed at the SPS 400 GeV –proton neutrino beam: purely leptonic neutrino interactions, short lived particles in proton beam dump experiment, nucleon structure functions with neutrino interactions.

University Researcher on leave of absence during 1981-1983 and 1984-1987, Research Associate for Istituto Nazionale Fisica Nucleare, Roma.

Physics Department of University "La Sapienza" in Rome, Italy

University Researcher

Classes of exercises for "General Physics"

Neutrino physics with the CHARM detector exposed at the SPS 400 GeV –proton neutrino beam

Assistant professor, Research Associate for Istituto Nazionale Fisica Nucleare, Roma
Temporary contract with Faculty of Mathematical, Physical and Natural Sciences of the University "La Sapienza", Roma, Italy

University Researcher

Classes of exercises for "General Physics"

Multigamma experiment at the Intersecting Storage Ring (CERN) and participation to the neutrino CHARM experiment (CERN).

Fellowship as researcher.

Temporary contract with Istituto Nazionale Fisica Nucleare (INFN), Roma, Italy.

Researcher

Classes of exercises for "General Physics"

Study of the production of pions in the interaction of an electron beam on a proton target at the INFN-Frascati electron Synchrotron; Multigamma experiment at the Intersecting Storage Ring (CERN)

High School Professor, Research Associate for Istituto Nazionale Fisica Nucleare, Roma

Istituto Tecnico Industriale Statale "Guglielmo Marconi", Civitavecchia

Teaching "Electronics" and "Electrotechnics"

EDUCATION AND TRAINING

1969 - 1974

"Laurea" in Physics

- Name and type of organisation providing education and training
- Principal subjects/occupational skills covered
- Title of qualification awarded
- Level in national classification

Institute of Physics, "La Sapienza" in Rome, Italy, Faculty of Mathematical, Physical and Natural Sciences of the University "La Sapienza", Roma, Italy
General Physics, High energy particle physics

"Laurea" in Physics
110/110 Magna cum Laude

PERSONAL SKILLS AND COMPETENCES

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

MOTHER TONGUE

ITALIAN

OTHER LANGUAGES

- Reading skills
- Writing skills
- Verbal skills

ENGLISH

GOOD
GOOD
GOOD

- Reading skills
- Writing skills
- Verbal skills

FRENCH

GOOD
GOOD
GOOD

SOCIAL SKILLS AND COMPETENCES

RESEARCH GROUP LEADER SINCE 1994 (PROJECTS NEMO, ANTARES, KM3NET, KM3)

ORGANISATIONAL SKILLS AND COMPETENCES

2014-now Member of the "Giunta" of the Physics Depart. of University "La Sapienza"
2016 Co-organizer and Editor of the 6th "Roma International Conference on Astroparticle Physics", (RICAP16, 21nd – 24th June 2016).
2012-2015 INFN national responsible of the Km3 group for the construction of the Undersea Cherenkov Telescope for High Energy astrophysical Neutrinos.
2015 Chairman organizer and Editor of the 7th "Very Large Volume Neutrino Telescope 2015" Workshop, (VLVnT15, 14th – 16th Sept. 2015).
2014 Co-organizer and Editor of the 5th "Roma International Conference on Astroparticle Physics", (RICAP14, 30th September – 3rd October 2014, held in Noto, Sicily, Italy).
2013 Chairman, organizer and editor of the 4th "Roma International Conference on Astroparticle Physics", RICAP-07, Roma, 22nd – 24th May, 2013.
2008-2012 coordinator of the Work Packages "Industrial production for deep sea components" for the KM3NeT "Preparatory Phase" project funded by EU in the framework of 7th Frame Program.
2008 Chairman, organizer and editor of the 3rd Roma International Workshop on the "Acoustic and Radio EeV Neutrino Detection Activities", ARENA-08, Roma, 25th – 27th June, 2008.
2007 Promoter, Chairman organizer and editor of the 1st "Roma International Conference on Astroparticle Physics", RICAP-07, Roma, 20th – 22nd June, 2007.
2006-2009 coordinator of the Work Packages "Shore and deep-sea infrastructure" for the KM3NeT "Design Study" project funded by EU in the 6th Frame Program.
2006 Since 2006 President of the Cultural association: "Associazione Romana per le Astro Particelle" funded by Prof. Antonio Capone, Prof. Mario De Vincenzi and Dr. Aldo Morselli.
2005 Member of the Organizing Committee and editor of the 2nd International Workshop on the "Very Large Volume Neutrino Telescopes", VLVnT2, Catania, 8th – 11th
 For more information go to
www.romma1.infn.it/people/capone

TECHNICAL SKILLS
AND COMPETENCES

November, 2005.

2003 Principal Investigator and responsible for the project "Technologies development for the detection of Astrophysical Neutrinos in undersea Telescopes" funded by the Italian Minister of University and Research (PRIN-2003).

2002-2005 Member of the International Advisory Committee and organizer of the Parallel Session on "Astroparticle Experiments" for the "Astroparticle, Particle and Space Physics, Detectors and Medical Physics Applications".

1994-1998 As Principal Investigator for INFN I have coordinated the work of the Italian component of the NESTOR experiment .

Good knowledge of scientific computer languages, fortran

Curriculum di Agnese Martini

Laureata nel 1982 con una tesi sperimentale per la realizzazione del software del controller CAMAC CANDI (1980-1982) e del protocollo di comunicazione per trasferimento dati tra CAMAC e PDP11/34 DEC

Assunta nel 1984 ai LNF come sistemista presso il centro di calcolo.

In questo ambito partecipa al gruppo di studio per la gestione e il supporto di personal computer APPLE e al gruppo NICE per l'ottimizzazione della gestione dei personal computer WINDOWS finanziato dalla Commissione Calcolo Nazionale INFN (1999-2000)

Partecipa a vari esperimenti in ambito di progettazione di reti (VET 1985-1986, STARNET 1986-1989)

Partecipa alla realizzazione del software di acquisizione di KLOE (1991-2000)

Dal 2000 partecipa all'esperimento ATLAS prima con la realizzazione del software per il test delle camere del detector costruite ai LNF,

Poi partecipa alla crescita e alla gestione del TIER2 di ATLAS presso i LNF. Gestendo sia le problematiche sistemiche che quelle inerenti al software specifico dell'esperimento.

Dal 2000 partecipa a NEMO/KM3. In questo ambito realizza il software per strumenti di misurazione in ambiente marino:

- NERONE per misure di attenuazione ottica in acque marine.
- PORFIDO per misure di temperatura salinità e pressione ad altissima sensibilità.

Partecipa anche alla realizzazione dell'interfaccia per la console degli slow control.

Dal 2015 ricopre la carica di software manager nella collaborazione Km3Net

Partecipa al Progetto ASTERICS per la definizione e realizzazione del modello di calcolo dell'esperimento.

Dal 2018 partecipa all'esperimento JUNO collaborando per la definizione del modello di calcolo.

Agnese
Martini

Digitally signed
by Agnese
Martini
Date: 2018.02.20
11:10:08 +01'00'

PAOLA LEACI

Posizione attuale: Ricercatrice (Rita Levi Montalcini) a tempo determinato, di tipologia B, presso il Dipartimento di Fisica dell'Università Sapienza, Roma (Italia).

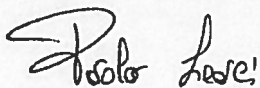
Attività di ricerca: Fisica delle Onde Gravitazionali, Analisi dati di Onde Gravitazionali, Ricerca di Pulsar, Astrofisica Relativistica e Cosmologia.

Ruoli nella collaborazione Internazionale LIGO-Virgo:

- Coordinatrice responsabile (Chair) Virgo del gruppo di ricerca "Continuous-Wave working group" della collaborazione internazionale Virgo e co-coordinatore (co-Chair) del gruppo di ricerca "Continuous-Wave working group" della collaborazione internazionale LIGO-Virgo sulle onde gravitazionali continue.
- Coordinatrice responsabile Virgo (Chair) del comitato "LIGO-Virgo diversity", la cui missione consiste nel tutelare i diritti delle minoranze, nel promuovere la conoscenza e l'apprezzamento della diversità nell'ambito della comunità scientifica.

Per maggiori dettagli si prega di consultare il curriculum vitae al link https://www.dropbox.com/s/nlshwuo8geoda8s/PaolaLeaciCV_IT.pdf?dl=0

Roma, 28/02/2018



Curriculum Vitae

Stefano Veneziano, born in Rome, the 24th of November 1963.

Current position:

Director of Research (Dirigente di Ricerca, I fascia) at Istituto Nazionale di Fisica Nucleare, Sezione di Roma.

Responsibility for research projects financed and refereed by national and international reviewers.

- KLOE Experiment (Frascati, Italy), Drift Chamber Readout System Coordinator, 1994-1997.
 - The First-level muon Barrel trigger system of the ATLAS experiment (CERN, Switzerland), INFN Project Leader (full responsibility of 4.45 MEuro of CORE value, 84 months), 2001-2008. Coordinator in 2000-2008.
 - The First-level Muon trigger system of the ATLAS experiment (Barrel, Endcap, Central trigger Interface), Coordinator (63 months), 2002-2007.
 - The First-level trigger system of the ATLAS experiment, Coordinator (13 months), 2007-2008.
 - MCS (MicroCapillari Scintillanti) INFN Project, on the development of a new detector based on scintillating micro capillaries, for applications in hadron therapy and tracking in particle physics, (Coordinatore Nazionale) 2012-2014.
 - ATLAS First-level trigger Coordinator, 2013-2015.
 - ATLAS First-level trigger Phase-I Upgrade Coordinator, since April 2013.
 - ATLAS TDAQ Phase-II Upgrade Project, Deputy Project Leader, Coordinator of the activities of the Level-0 Calorimeter, Muon, Global and Central Trigger Working Groups, since February 2017.
 - ATLAS Italia, Upgrade Coordinator, National Contact, since October 2017.
- **Research contracts from international institutions**
- visiting scientist (Scientific Associate) at CERN Experimental Physics Division, January 1999 - March 2000.
 - visiting scientist (Scientific Associate) at CERN, Experimental Physics Division, July 2006 - July 2007.
 - project Associate at CERN, Experimental Physics Division, for the ATLAS Experiment August 2007 - August 2008.
 - project Associate at CERN, Experimental Physics Division, for the ATLAS Experiment, since September 2017.

• **Education and scientific career**

- October 2013, became Professor at Department of Physics of Sapienza University of Rome, by participation to a four-year Italian academic institutions exchange program, Agreement between INFN and Sapienza Università di Roma.
- in September 2013 obtained National Scientific Qualification as Full Professor (Abilitazione Scientifica Nazionale, Professore di Prima Fascia), in the "Experimental Particle Physics" field.
- became Director of Research (I fascia) at Istituto Nazionale di Fisica Nucleare, January 2007.
- became First Researcher (II fascia) at Istituto Nazionale di Fisica Nucleare, February 2000.
- became Researcher (III fascia) at Istituto Nazionale di Fisica Nucleare, November 1991.
- won INFN Fellowship on Particle Physics Research (followed dedicated courses, passed final examination). February 1989 - August 1991.
- won Angelo Della Riccia Fellowship, for visiting CERN, February-December 1989.
- followed CERN-JINR School of Physics, Egmond-aan-Zee, Holland, June-July 1989.
- obtained Laurea di Dottore in Fisica at Università La Sapienza, 110/110 cum laude, discussing the thesis called "Il calorimetro a Uranio e camera a ionizzazione a liquido a temperatura ambiente dell'esperimento UA1 al collider protone-antiprotone del CERN". Supervisor Professor F. Ceradini within the UA1-Rome group of INFN and Università La Sapienza, in Rome, September 1988.
- Technical Student at CERN, February 1987 - April 1988.
- Summer student at CERN, July-September 1986.

• **Functions and scientific responsibilities**

- ATLAS TDAQ Phase-II Upgrade Deputy Project Leader, Coordinator of the activities of the Performance, Physics Studies and Event Selection, Tracking, Calorimeter, Muon, Global and Central Trigger Working Groups, since February 2017.
- Reviewer for the Italian "Progetti di Ricerca di Interesse Nazionale (PRIN) 2015" call for Research Projects of National Interest.
- Since 2014, Organiser of the TWEPP 2014 workshop, Topical workshop on electronics for Particle Physics.
- ATLAS First-level trigger Phase-I Upgrade Coordinator, a co-joint Germany, Italy, Japan, UK, US and CERN project, since April 2013.
- 2014: Reviewer for the National Science Center, Poland.
- 2014, ECFA member for the HL-LHC project, Trigger, Online and Offline Processing Group. This group provided guidelines to all experiments for the design of trigger systems, online and offline computing working at High Luminosity LHC.
- 2013, ECFA member for the HL-LHC project, muon detectors group. This group provided guidelines to all experiments for the design of muon detectors, trigger systems and related electronics working at High Luminosity LHC.
- 2013-15: ATLAS Level-1 System Coordinator.
- Reviewer for the Italian "Futuro In Ricerca 2013", call for Grants reserved for Young Researchers.
- 2012-14: Responsible for MCS (MicroCapillari Scintillanti), a two year national project financed by INFN, for the development of a new particle detector, in collaboration with EPFL Lausanne and CERN.
- September 2007 - September 2008: Project leader of the ATLAS First level Trigger System, an international collaboration between CERN, Germany, Israel, Italy, and United Kingdom for the operation of the Calorimetric, Muon and Central Trigger Processors of the experiment.
- Referee for the Journal of Instrumentation JINST since 2007.
- March 2005 - September 2008: member of the Steering Group for the Installation and Commissioning of the ATLAS Muon Spectrometer, with responsibility of the integration of the Muon Trigger.
- Member of the Ministry of University and Research (MIUR) Reviewers (Albo Revisori MIUR) since January 2004.
- Reviewer of the MIUR program "Rientro dei Cervelli" call, dedicated to the integration in Italian academic institutions of Italian scientists working abroad, 2004.
- June 2002 - September 2007: Project Leader (CERN), of the LVL-1 Muon Project, a collaboration of research groups from CERN, Israel, Italy and Japan. In January 2004 became member of the ATLAS Trigger and Data Acquisition Steering Group.
- September 2002 - March 2003: Observer in the National Scientific Commission I (particle physics)

for National Scientific Commission V (new technologies, detectors, accelerators and instrumentation).

- September 2001 - September 2008: Project Leader of the First-level muon barrel trigger system of the ATLAS experiment (INFN).
- January 2000 - September 2008: Project leader (CERN) of the First-level muon barrel trigger system of the ATLAS experiment for the design, construction and Commissioning of the system, and the related Resistive Plate Chamber detector readout system.
- April 2000 - June 2006: head of the Electronics Laboratory of INFN, Sezione di Roma.
- June 1997 - December 2006: Coordinator of the KLOE drift chamber readout system, DAPHNE accelerator, Frascati, Italy.
- May 1997 - December 1998: head of the Electronics Laboratory of INFN, Sezione di Roma. Left to visit CERN.
- May 1997 - March 2003: Scientific Secretary of National Scientific Commission V.
- March 1997- March 2003: Member of INFN National Scientific Commission V. Referee for numerous INFN national projects. Coordinator of the Rome activities of National Scientific Commission V.
- March 1996 - October 1998: responsible for the data acquisition system of the Muon test facility of the ATLAS experiment, on the H8 test beam at CERN.

Scientific activity

During my scientific career I have dealt with many challenges covering a broad spectrum of subjects related to High Energy Physics: calorimetry, muon detection, gas detectors, photosensors and scintillating detectors, detector Montecarlo studies and data analysis, trigger systems, data acquisition systems, instrumentation, electronics architecture and system design, ASIC designs, large detectors design, calibration and operation.

- 1986-1989: UA1 Experiment (CERN proton-antiproton Collider), b quark production and top quark search in the semi-leptonic channel. Uranium-Tetramethylpentane warm liquid calorimeter upgrade, prototypes and testbeam studies.
- 1990-1996: WA92 Experiment (CERN West Area), beauty and charm hadro-production at the Omega spectrometer, on a 350 GeV/c pion beam. Muon filter and fast trigger design, DAQ.
- 1989-1990: Large Hadron Collider Muon Identification and Triggering working groups. Proposal for the use of Resistive Plate Chamber (RPC) detectors for fast triggering. Test beam studies at H2 and X1 beams at CERN. Montecarlo studies of hadronic punch through in Iron and measurements.
- 1990 - 1994: Research and Development experiment at CERN RD5 (trigger systems and momentum reconstruction in high magnetic field). Studies on hadronic punch through and the production of electromagnetic secondaries from high-momentum muons. RPC detector performance studies and tracking capability.
- 1992 - 1997: Research and Development experiment at CERN RD27 (first level trigger systems for LHC experiments). Definition of the trigger architecture, later used in the muon barrel of ATLAS. Development of the trigger demonstrator Application Specific Integrated Circuit, in collaboration with Rutherford, UK.
- 1993 - 1999: KLOE experiment Drift chamber (Laboratori Nazionali di Frascati), first prototypes, testbeam tests and data analysis. Development of the Time to Digit Converter ASIC of the drift chamber. Design, construction and deployment of the Drift Chamber readout system.
- 2012-2014: MCS, national coordination of a two-year project dedicated to the study of a novel liquid scintillator based detector developed using MEMS technology and micro-fluidics. The collaboration was a joint effort of INFN Rome, INFN Milan, EPFL Lausanne and CERN.
- since 1992: ATLAS Collaboration.
 - 1992- 1994: Muon Trigger group. RPC simulations and tests, contribution to the Letter Of Intent. Trigger tower prototype on test beam, data analysis. ATLAS Technical Proposal, author of chapters relative to first level muon trigger.
 - 1995 - 1999: Development of the Test Beam Data Acquisition system of all Muon detectors. Collaboration with core DAQ group developing readout architectures in RD13. Final development of the details of the detector layout and trigger architecture, including the development of the dedicated Coincidence Matrix ASIC, used for triggering and readout. Study of the effects of radiation on electronics.
 - 1999-2000: contribution to the activities of Trigger/DAQ groups at CERN, developing the first prototype of the Read-Out-Buffer. The first element on the readout chain common to all ATLAS detectors.

- 1993-2003: responsibility of the muon barrel trigger system design, leading also the design of software applications dedicated to initialisation, control and monitoring of the system.
- 2003 - 2005: construction and assembly of the muon barrel trigger in the experiment, completion of ageing studies on detector. Final system tests on the H8 test beam facility at CERN.
- 2003 - 2007: installation and commissioning of the experiment, full responsibility for the ATLAS first level-trigger system project.
- since 2007: System calibration, optimisation of Momentum thresholds and calibration. The system is now working with more than 99% live time and efficiency on its geometrical acceptance. It is a core system necessary for the success of the ATLAS experiment.
- since April 2013: coordination of Atlas level-1 system and upgrade activities. I proposed the use of the Tile Calorimeter Detector as a muon tagger, to reduce the fake rate of the Muon End-cap trigger in the region $1.0 < |\eta| < 1.3$. This project has been approved and now under construction. I have been co-editor of the TDAQ TDR and I am Chair or Reviewer for many detector and trigger projects which have been installed for Run2, or will be used in Phase-I.
- Since February 2017 I became Deputy Project Leader of the TDAQ Phase-II Upgrade. The project is currently following a roadmap towards the TDAQ Phase-II Technical Design Report that should be published end of this year. I am coordinating the activities relative to the Trigger system: Performance, Physics studies and Event Selection, Tracking, Calorimeter, Muon, Global, Central Trigger Working groups. I am co-author of the ATLAS TDAQ architecture chapter.

Publications

Author of 681 cited papers (Scopus: h-index 63, Google Scholar: h-index 109, i-10 index 322),

WEB OF KNOWLEDGE URL: <http://www.researcherid.com/rid/J-1610-2012>

GOOGLE SCHOLAR URL : http://scholar.google.com/citations?user=_fdZrX8AAAAJ

ORCID: orcid.org/0000-0002-2598-2659

SCOPUS: Author ID: 7003406205, <http://www.scopus.com/inward/authorDetails.url?authorID=7003406205&partnerID=MN8TOARS>

Teaching

- Tenure: two-semester "Laboratorio di Fisica Nucleare e Subnucleare" Master graduate course in Physics, since october 2013. Dipartimento di Fisica, Sapienza Universita' di Roma
- Tenure: one-semester "Elettronica Generale" Bachelor course in Physics. Academic Year 2013-14. Dipartimento di Fisica, Sapienza Universita' di Roma
- Tenure: one-semester "Elettronica Generale" Master course in Physics, academic years 2011-12, 2012-13. Dipartimento di Fisica, Sapienza Universita' di Roma.
- Master course "Progettazione di ASICs",. Padua University, from Academic year 2005-2006 and 2006-2007.
- "Laboratorio di Fisica Nucleare e Subnucleare", (Professore a contratto) Corso di Laurea in Fisica, Universita' La Sapienza, Roma, from January 1999 to march 2000.
- Academic years 1999-2000, 2000-2001, 2001-2002, 2002-2003, 2003-2004, 2004-2005 (Teaching Assistant), Esercitazioni di laboratorio del corso di 'Laboratorio di Fisica Nucleare e Subnucleare'. Corso di laurea in Fisica, Universita' la Sapienza, Roma.
- Academic years 1992-1993, 1993-1994, 1994-1995, 1995-1996, 1996-1997 (Teaching Assistant), Esercitazioni di laboratorio del corso di Sperimentazione di Fisica III. Corso di laurea in Fisica, Universita' la Sapienza, Roma.

I am Thesis Advisor for PHD and Master theses in Physics at Dipartimento di Fisica, Sapienza Universita', Rome.

Curriculum Vitae del prof. FRANCO MEDDI

Sono nato a Roma il 6 maggio 1951. Laureato in Fisica (con lode) nel 1974. Professore Associato dal 1992 presso il Dipartimento di Fisica dell'Università di Roma "La Sapienza". Nella stessa Università: 1975/1980 titolare di Assegno di formazione Scientifica e Didattica del Ministero delle Pubblica Istruzione; 1980/1992 Ricercatore Universitario confermato di ruolo. In congedo dall'Università presso il laboratorio CERN (Ginevra) come "Scientific Associate" (2000-2001).

Ho svolto e continuo a svolgere la mia attività scientifica nei campi della fisica nucleare e delle particelle elementari in numerose Collaborazioni Internazionali (NA19, WA71, WA75, NA34-HELIOS, EMU09, NA34-2, NA34-3, WA97, NA57, WA95-CHORUS, ALICE, JLAB12), lavorando non solo presso il Dipartimento di Fisica di Roma ma anche presso vari Laboratori di Ricerca Internazionali: in Europa (CERN, Ginevra), negli Stati Uniti (Berkeley CA, Brookhaven NY, Jefferson Laboratory VA). Gli argomenti di ricerca in fisica sono stati: proprietà di particelle costituite da quark pesanti (Charm e Beauty), oscillazioni di neutrini, materia adronica in condizioni estreme (Quark Gluon Plasma) tramite collisioni di nuclei pesanti ultrarelativistici. Ho contribuito allo sviluppo ed alla realizzazione di rivelatori al silicio per il tracciatore interno (ITS) dell'esperimento ALICE a LHC-CERN. In particolare, ho lavorato sui rivelatori di tipo PIXEL e sui rivelatori a deriva di silicio (Silicon Drift Detector). Questa attività ha riguardato anche la fase di ricerca e sviluppo (RD19-CERN). In tale modo ho potuto acquisire una notevole esperienza sperimentale, maturando ottimi rapporti di collaborazione scientifica con ricercatori sia italiani sia stranieri. In questi ultimi anni partecipo all' upgrading sia del tracciatore interno dell'esperimento ALICE a LHC-CERN (Ginevra) che sarà totalmente in tecnologia PIXEL di tipo monolitico, sia dello spettrometro SBS al Jefferson Laboratory (Virginia-USA) con la costruzione di due piani di rivelatori ad alta risoluzione al silicio da abbinare ai piani di rivelazione basati su tecnologia GEM. A partire dal 2005 ho iniziato a collaborare a vari programmi di Ricerca e Sviluppo di rivelatori per singolo fotone basati su tecnologia SiPM ed alle loro applicazioni sia in fisica medica, sia in astrofisica. In particolare, nel campo della fisica medica ho studiato nuove soluzioni per la PET basate appunto su rivelatori al silicio di tipo SiPM (progetti: AXPET-CERN e TOPEM-INFN). Dal 2009 collaboro con un gruppo di astrofisici del Dipartimento di Fisica di Roma "La Sapienza" allo sviluppo della strumentazione necessaria per lo studio di PULSAR. Si tratta di un originale fotometro veloce a più canali basato su tecnologia SiPM e su elettronica veloce di tipo custom basata su FPGA e su microprocessori per il trattamento dei segnali. Si tratta di uno sviluppo da me importato dal campo delle alte energie a quello della astrofisica.

Curriculum vitae di Roberta Santacesaria

- Nata a Roma il 2 Dicembre del 1959
- Maturita' scientifica nel 1978 con votazione 60/60
- Laurea in Fisica nel 1984 con votazione 110/110 e lode all'Universita' di Roma La Sapienza"
- Borsa di Studio INFN dal 1986-1988
- Ricercatore INFN dal 1988-1996
- Primo Ricercatore INFN dal 1996
- Contratto come "Scientific associate" al CERN di Ginevra, Maggio 1989 – Ottobre 1990
- Contratto come "Scientific associate" al CERN di Ginevra, Ottobre 1996 - Dicembre 1997
- Rappresentante dei ricercatori di Roma nel Consiglio di Sezione di Roma dal 2005 al 2008

Attivita' didattica

- Anno Accademico 1990-1991 : Esercitazioni di Fisica II per studenti di Scienze dell'Informazione
- Anno Accademico 1994-1995 : Esercitazioni di Esperimentazione Fisica III per studenti di Fisica
- Anno Accademico 1998-1999 : Lezioni di Fisica del Neutrino per il XIV ciclo di Dottorato
- Anno Accademico 1999-2000 : Lezioni di Fisica del Neutrino per il XV ciclo di Dottorato
- Relazione di diverse tesine, tesi di laurea magistrale e di dottorato

Attivita' scientifica

Lavoro in fisica delle particelle elementari dal 1984. Ho dedicato la prima parte della mia carriera alla fisica del neutrino (esperimenti CHARM, CHARMII, CHORUS, proposte di nuovi esperimenti). Successivamente mi sono interessata alla violazione di CP nel sistema della beauty (proposta LHB, LHCb). Ho partecipato ad una sperimentazione per studiare le capacita' dei cristalli curvati di deviare particelle cariche, con enfasi al problema della collimazione di fasci (UA9).

FISICA DEL NEUTRINO

Esperimento WA95 (CHORUS) (1990 - 2000)

Oscillazioni numu-nutau sul fascio di neutrini a banda larga dell'SPS del CERN con l'utilizzo di emulsioni nucleari come bersaglio.

Principali attivita':

- ottimizzazione analisi pre-scanning
- analisi dei dati e stesura del lavoro con il primo limite significativo sui parametri delle oscillazioni

Incarichi:

- responsabile del software dei gruppi italiani
- responsabile del gruppo Chorus di Roma dal 1998 al 2000

- coordinatrice dell'analisi principale numu-nutau, 1999-2000
- membro dell' Academic and editorial board

Studi di fattibilita' di futuri esperimenti di neutrino (1997 - 2000)

1) Calorimetro convenzionale per ricerca di oscillazioni numu-nutau al Gran Sasso (NICE). Test e sviluppo di tecniche di lettura di scintillatori attraverso fibre wave length shifter (NUTEST).

Principali attivita':

- promozione e sostegno attivo dell'iniziativa
- calcolo delle potenzialita' dell'esperimento su fascio CNGS e con i neutrini atmosferici
- stesura dell'Eol

Incarichi:

- responsabile del gruppo NUTEST di Roma dal 1998 al 2000

2) Ricerca di oscillazioni numu-nue al PS del CERN con la tecnica dei due rivelatori.

Principali attivita':

- promozione e sostegno attivo dell'iniziativa
- simulazione dell'ottica del fascio del PS al fine di ottimizzare lo spettro dei neutrini per la misura dei parametri di oscillazione
- stesura della LOI

DEFLESSIONE DI PARTICELLE CARICHE IN CRISTALLI CURVATI E COLLIMAZIONE

Esperimento H8RD22 (2006-2015)

Sperimentazione sulla deflessione di particelle cariche da parte di cristalli curvati e possibile applicazione alla collimazione di LHC

Principali attivita':

- promozione dell'iniziativa
- analisi dati dei run su fascio estratto e circolante
- stesura articoli

FISICA DEL BEAUTY

Esperimento LHCb (2001-oggi)

Esperimento per lo studio della violazione di CP nel sistema beauty a LHC.

Principali attivita':

- ottimizzazione del trigger di muoni di primo livello
- coordinamento delle attivita' di hardware in fase costruttiva
- simulazione e ricostruzione del sistema di muoni
- simulazione e studio dei fondi aspettati nelle camere a mu e ottimizzazione degli assorbitori attorno alla beampipe
- allineamento temporale dei 26.000 canali di lettura delle camere a mu, (fondamentale per l'efficienza di trigger in 25ns) con cosmici e primi dati di collisione

-Analisi dei dati per la ricerca di stati esotici di charmonio

Incarichi:

- responsabile del gruppo LHCb di Roma dal 2002 ad oggi
- coordinatore del software del rivelatore di muoni dal 2001 al 2004
- membro dello Speaker's Bureau di LHCb da giugno 2006 a dicembre 2008
- membro dell' Editorial Board dal 2016 ad oggi