

ANTONIO CAPONE
CURRICULUM VITAE



PERSONAL INFORMATION

Name **CAPONE, Antonio**
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Nationality **Italy**

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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,

Sicily, Italy).

2013 Chairman organizer and Editor of the 4th "Roma International Conference on Astroparticle Physics", (RICAP13, 22nd – 24th May 2013).

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".

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.

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.

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).

2007 Promoter, Chairman, organizer and Editor of the "1st Roma International Conference on Astroparticle Physics", (RICAP07, 20th -22nd June 2007).

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).

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)

Since 2001 – INFN local coordinator of the group NEMO and ANTARES for the search of High Energy Astrophysical Neutrinos.

1994 - 1995

- **Name and address of employer**
- **Occupation or position held**
 - **Main activities and responsibilities**

Employed as "Scientific Associate" 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-II detector exposed at the SPS 400 GeV for the study of neutrino oscillation: coordinator of several data analysis groups.

• **From Nov. 1991 to Nov. 2001**

- **Name and address of employer**
- **Occupation or position held**
 - **Teaching activities and responsibilities**
 - **Research activities and responsibilities**

Associate Professor, on leave of absence in the period 1994-95, Research Associate for Istituto Nazionale Fisica Nucleare, Roma

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

Professor of "Physics" for the "Corso di Laurea" in "Informatics" (1991/1993)

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)

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.

1991-1998: Neutrino physics with the CHARM-II detector exposed at the SPS 400 GeV –proton neutrino beam.

1994-1997: INFN national coordinator of the project NESTOR for the realization of a submarine Cherenkov detector for High Energy Astrophysical Neutrinos

- **From Nov. 1987 to Nov. 1991**
- **Name and address of employer**
- **Occupation or position held**
 - **Teaching activities and responsibilities**

Associate Professor, Research Associate for Istituto Nazionale Fisica Nucleare, Roma
Università degli Studi della Basilicata, Potenza, Italy

Associate Professor

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".

• **Research activities and**

Neutrino physics with the CHARM and CHARM-II. Coordinator of several CHARM-II

responsibilities	analyses for the study of neutrino oscillations.
1984 - 1987	Employed as "Staff Member" at the European Center for Nuclear Research (CERN) being "on leave of absence" from University "La Sapienza" in Rome.
• Name and address of employer	European Center for Nuclear Research (CERN)
• Occupation or position held	Researcher
• Main activities and responsibilities	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.
1981 - 1983	Employed as "Fellow" at the European Center for Nuclear Research (CERN) being "on leave of absence" from University "La Sapienza" in Rome, Italy.
• Name and address of employer	European Center for Nuclear Research (CERN)
• Occupation or position held	Researcher
• Main activities and responsibilities	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.
1981 - 1987	University Researcher on leave of absence during 1981-1983 and 1984-1987, Research Associate for Istituto Nazionale Fisica Nucleare, Roma.
• Name and address of employer	Physics Department of University "La Sapienza" in Rome, Italy
• Occupation or position held	University Researcher
Teaching activities	Classes of exercises for "General Physics"
• Research activities and responsibilities	Neutrino physics with the CHARM detector exposed at the SPS 400 GeV –proton neutrino beam
1976 - 1981	Assistant professor, Research Associate for Istituto Nazionale Fisica Nucleare, Roma
• Name and address of employer	Temporary contract with Faculty of Mathematical, Physical and Natural Sciences of the University "La Sapienza", Roma, Italy
• Occupation or position held	University Researcher
Teaching activities	Classes of exercises for "General Physics"
• Research activities and responsibilities	Multigamma experiment at the Intersecting Storage Ring (CERN) and participation to the neutrino CHARM experiment (CERN).
1975 - 1976	Fellowship as researcher.
• Name and address of employer	Temporary contract with Istituto Nazionale Fisica Nucleare (INFN), Roma, Italy.
• Occupation or position held	Researcher
Teaching activities	Classes of exercises for "General Physics"
• Research activities and responsibilities	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)
1974 - 1975	High School Professor, Research Associate for Istituto Nazionale Fisica Nucleare, Roma
• Name and address of employer	Istituto Tecnico Industriale Statale "Guglielmo Marconi", Civitavecchia
• Occupation or position held	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

ENGLISH

GOOD

GOOD

GOOD

FRENCH

GOOD

GOOD

GOOD

- Reading skills
- Writing skills
- Verbal skills

- Reading skills
- Writing skills
- Verbal skills

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.roma1.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