

**Prof. Giuseppina IMME'**

**CURRICULUM VITAE**

**Contact**

Prof. Giuseppina IMME'  
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**Area of Expertise:** Environmental Physics, Radioactivity, Nuclear Physics, Atmosphere Physics

**RELEVANT EMPLOYMENT AND EDUCATIONAL HISTORY**

**Education**

1969-1973 Degree in Physics, 110/110 cum Laude, University of Catania

**Employment**

1974-1981 Contract at the Institute of Physics – University of Catania  
1978-1983 Assistent Professor – Course of Degree in Physics – University of Catania  
1981-1984 Researcher of Nuclear Physics – Department of Physics – University of Catania  
1984-2002 Associate Professor of Experimental Physics – Dept Physics – University of Catania  
2002-present Full Professor of Experimental Physics and Applied Physics at the Department of Physics and Astronomy – University of Catania

**TEACHING ACTIVITIES**

**University Teaching**

1978-1996 Molecular Physics  
Physics  
Experimental Physics  
1996-present Laboratory of Environmental Physics  
1998-present Environmental Physics  
2004-2010 Atmospheric Physics  
2004-2014 Radioactivity  
2006-present Themes of Environmental Physics

**PhD Courses – Physics – University of Catania**

1995-1997 Detectors and detection techniques  
1999-2000 Nuclear Physics  
1999-2000 Methods to characterize geodynamics events  
2010-2011 Dynamical processes in atmosphere

**Master Courses - University of Catania**

2000-2001 Procedures of evaluation of Environmental impact  
2001-2002 Monitoring and evaluation of environmental impact  
2010-present Ionizing and non ionizing radiations and environmental risk

**Postgraduate School to prepare teachers for secondary school**

1999-2006                      Themes of environmental Physics  
2011-present                    Applied Physics

**Tutor** of graduated students

**Supervisor** of graduated PhD students

**Tutor** of Training fellowships for project of International Atomic Energy Agency (IAEA)

**Prizes and awards**

2010 – Italian Physics Society – Teaching activity Prize

**RESEARCH ACTIVITY**

**Past interests – EXPERIMENTAL NUCLEAR PHYSICS**

[experiments at *Department de Physique Nucleaire - CEN -Saclay –France*, at *Laboratoire National Saturne-Saclay-France*, at *Laboratorio Grand accélérateur national d'ions lourds (G.A.N.I.L.) - Caen -France*, at *Laboratorio Gesellschaft für Schwerionenforschung (G.S.I.)-Darmstadt-Germany*, at *Laboratorio National Superconducting Cyclotron Laboratory (NSCL-MSU) - Michigan State University –USA* and at *Laboratori Nazionali del Sud-INFN-Catania*]

Nuclear structure and reaction mechanisms at low energies. Reaction mechanisms in heavy ion collisions at intermediate and relativistic energies. Study of the *Multifragmentation* process. Nuclear Thermodynamics. Liquid-gas phase transitions in nuclear matter. Radioactive beams production at intermediate energies.

**Present interests – ENVIRONMENT APPLIED PHYSICS**

Environmental Radioactivity. Nuclear geophysics. Study on correlation with geodynamics events. Radioprotection. Atmospheric Physics. Climate change.

**COLLABORATION POSITIONS AND SCIENTIFIC ASSOCIATIONS**

- Stagiaire and Scientific Collaborator at Department de Physique Nucleaire de Basse Energie and de Mesure Fondamentale - C.E.N.- Saclay (France) (1977-1990)
- Scientific collaborator at GANIL – Caen (France) (1980-1990)
- Scientific collaborator at GSI-Darmstadt (Germany) (1985-2008)
- Member of Users group at LNS-INFN
- Member of Users Group at NSCL-MSU, Michigan, USA (1990-2000)
- Associate Researcher at INFN
- Scientific collaborator of Centro Siciliano di Fisica Nucleare e Struttura della Materia
- Member of Italian Physics Society
- Member of International Nuclear Track Society
- Member of International Nuclear Chemistry Society

**SCIENTIFIC RESPONSABILITIES**

- Spokesperson of Experiments at LNS-INFN-Catania
- National coordinator of INFN projects
- National Scientific Responsible of research projects at MURST, MIUR, MUR, P.R.A.
- Group Leader of international research projects of the European Community at GSI-Darmstadt.
- Scientific Responsible POR Sicily project 2000-06-mis.3.15 to develop a *Centre to control*

*ionizing radiations*

- Scientific Responsible of Research Unity for a GNDT (Gruppo Nazionale per la Difesa dai Terremoti) project on “Simulations of seismic events and damage scenarios in urban areas”
- Scientific Responsible of MURST project on "Methods and models to characterize environment to prevent geodynamical events” - Cluster 11B-RSV4

**SCIENTIFIC COLLABORATIONS**

NUCLEAR PHYSICS

*ALADiN COLLABORATION*: Germany, Italy, Poland, Russia

*ALADiN-MINIBALL COLLABORATION*: Germany, Italy, Poland, Russia, USA

*ALADiN-INDRA COLLABORATION*: France, Germany, Italy, Poland, Russia

ENVIRONMENTAL PHYSICS

- ISTITUTO NAZIONALE GEOFISICA E VULCANOLOGIA - SEZIONE DI CATANIA
- RADON & NATURAL RADIOACTIVITY RESEARCH LABORATORY- UNIV. COLLEGE OF DUBLIN
- UNIVERSITY OF SILESIA, INST. PHYSICS, DEPT OF NUCLEAR PHYSICS AND ITS APPLICATIONS
- INSTITUTE OF NUCLEAR SCIENCES OF IZMIR, TURKEY.
- DEPARTMENT OF PHYSICS UNIVERSITY OF PRAGUE - CZECH REPUBLIC
- INTERNATIONAL ATOMIC ENERGY AGENCY (IAEA) VIENNA

**PUBLICATIONS**

- Invited talks in International Conferences
- Two review chapters on Books
- More than 180 refereed publications on International Journal and Conferences Proceedings

**EDITORIAL /REVISION/EVALUATION ACTIVITY**

- Chairperson, Editor and Scientific Secretary of International Conferences
- Referee of international Journals: Nuclear Instruments and Methods, Journal of Radioanalytical and Nuclear Chemistry, Giornale di Fisica, Geophysical Journal International, Natural Hazards, Environmental Earth Sciences
- Member of Consulent Committee of “*Giornale di Fisica*”
- Member of Committee for “Comparative Evaluation” for Full Professor
- Member of Committee for INFN Researcher Evaluation
- Referee of the “Evaluators’ committee” from “Permanent Committee for Academic Promotions” of the “King Abdulaziz University”- Ministry of Higher Education- Kingdom of Saudi Arabia

**ACADEMIC-COORDINATION-OUTREACH ACTIVITIES**

- National Coordinator of the “Scientific Degree Courses– Physics” MIUR project (2004-present) for “Student orientation and teacher formation” (2004-present)
- Member of the Permanent Didactic Committee of Italian Physics Society (2010-present)
- Delegate of the Rector of the University of Catania, for “Sports and recreational activities” (2008)

- National Coordinator of “Scientific Degree Courses” MIUR project, for “Graduate formation, Stage, Post-lauream - Physics” (2004-2010)
- Member of the National Coordination Board of the “Lauree Scientifiche” MIUR project (2004-2010)
- National Coordinator of the coordinators of the Degree Physics Courses (2002-2005).
- Member of the National Committee of the Scientific Faculties Heads (2002-2005)
- Member of the National Coordination Board to review Degree Courses (after DM270/04)
- Coordinator of the Degree Physics Courses –University of Catania (1998-2004)
- Delegate of the DFA for relations with secondary schools and Association of Physics teachers.
- Member of the Joint Committee and other committees of the Science Faculty and of the Department of Physics and Astronomy
- National Coordinator of the “RadioLab” INFN project for scientific dissemination on environmental radioactivity (2012-present)