

Short curriculum vitae

Enrico De Filippo

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Preparation, education

Degree in Physics (Laurea) at Catania University (12/1988).
Ph. Doctor in Physics (Nuclear and sub nuclear physics) 1992.
INFN post-doctoral fellowship from 3/1992 to 3/1993.
Fellowship at CSFNSM Catania up to 8/1993
Post-doctoral fellowship at CEA-DAPNIA/SPhN Saclay (France) from 9/1993 to 10/1994.
Research contract at CEA-DAPNIA/SPhN Saclay (France) from 11/1994 al 2/1995.
Research contract of IN₂P₃-CNRS at GANIL (France) from 3/1995 to 9/1995.
Contract as full-time Researcher (fixed term duration) at INFN Catania from 10/1995 to 12/1998.

Permanent appointments

From 1999 to 2006 Researcher (level III) at INFN Catania.
From 2007 First Researcher (level II) at INFN Catania.

Research activity

My research activity has been developed in the field of experimental nuclear physics, mainly devoted to nuclear dynamics and reaction mechanisms studies. I have worked at Laboratori Nazionali del Sud (LNS (Italy), Saclay, Ganil (France) and GSI (Germany). My current activity is principally linked with research using the CHIMERA 4 π detector at LNS.

- Heavy ion collisions at low energies (<20 A.MeV) and intermediate energies (Fermi energies $20 < E/A < 100$ A.MeV)
- Nuclear fission induced by heavy ions.
- Projectile fragmentation at intermediate energies. Contribution to the design and construction of the BaF₂ Argos multidetector.
- Instrumentation. Studies and development of scintillation detectors or solid state detectors
- Research and development on pulse-shape discrimination in scintillator and solid state detector with analog or digital readout.
- Nuclear multi-fragmentation. Contribution to the design and construction of the 4 π CHIMERA multidetector.
- 2 particles correlation techniques, p-p, p-n, n-n in order to look at space-time characteristics of the emission sources.
- Design of data acquisition systems, “real time” processes and software development for nuclear physics experiments. Readout digitalization.
- Fast electrons ejections in atomic collisions induced by swift heavy ions.
- Study of the reaction dynamics in heavy ions collisions at intermediate energies. “Neck” formation. Isospin effects in charge asymmetric nuclear matter.

- Time scales of fragments formation. Dynamical fission.
- The symmetry energy term of the nuclear equation of state (EOS) at low and high density of the nuclear matter.

Publications

Publications in “full refereed” reviews: 121 (5 Phys. Rev. Letter, 26 Phys. Rev. C, 5 Phys. Rev. A, 9 Phys. Lett. B, 15 Nucl. Phys. A, 16 IEEE Trans. Nucl. Science, 9 NIM A, 7 NIM B, 4 Eur. Phys. Journal A, 25 *others*).

Services (from 2008)

- ✓ From 2008 national responsibility (with G. Cardella) of the EXOCHIM experiment at 3th INFN commission.
- ✓ From 2007 to 2012 referee member of “sotto-commissione Calcolo” (Computing for experimental nuclear physics) of 3th INFN commission.
- ✓ From 2009 member of the GUB, GANIL User Board (Caen, France).
- ✓ In the period 2008-2012 spoke-person of experiments at Laboratori Nazionali del Sud: TimeScale (with A. Pagano e J. Wilczyński, done in 2008), TimeScaleZn (with A. Pagano, 2012), Auger (2009, with H. Rothard), InkiIsSy (2013, with P. Russotto, A Pagano).
- ✓ Amongst organizers (Local Committee) of the *International Workshop on Nuclear Symmetry Energy (Asy-Eos)*, Catania, May 29-30 2008
- ✓ Amongst organizers (Scientific Committee) of the conference IWM2011, “*International Workshop on Multifragmentation*”, GANIL (Caen, France) November 2-5 2011.
- ✓ Amongst organizers (Local Committee) of the *International Workshop on Nuclear Symmetry Energy (Asy-Eos)*, Syracuse (Italy), September 4-7 2012.