

Teresa Montaruli

Professional Preparation

1993 M.Sc., Physics, University of Bari, Italy
1994 Specialization in Physics at University of Bologna, Italy
1998 Ph.D., Physics, University of Bari, Italy

Appointments

1994 INFN Fellowship for Physics Research
1998 INFN PostDoc Fellowship in Experimental Physics
2000 Research Assistant University of Bari
2001 Tenured Assistant Professor University of Bari
2005 Assistant Professor University of Wisconsin

Awards

2001 Shakti P. Duggal “in recognition of significant contributions to cosmic ray physics by a young scientist of outstanding ability”.

Publications

Limits on the high-energy gamma and neutrino fluxes from the SGR 1806-20 giant flare of December 27th, 2004 with the AMANDA-II detector, with the IceCube Collaboration, Phys. Rev. Lett. **97**, 221101 (2006).

First year Performance of the IceCube Neutrino Telescope, with the IceCube collaboration, Astropart. Phys. **26**, 155 (2006).

First results of the Instrumentation Line for the deep-sea ANTARES neutrino telescope, with the ANTARES Collaboration, Astrop. Phys. **26**, 314 (2006).

Effect of neutral current interactions on high energy muon and electron neutrino propagation through the Earth, with A. L'Abbate, I. Sokalski, Astropart. Phys. **23**, 57 (2005).

Spectra of neutrinos from dark matter annihilations, with M. Cirelli, N. Fornengo, I. Sokalski, A. Strumia, Nucl. Phys. **B727**, 99 (2005).

The atmospheric neutrino flux below 100 MeV calculation: the FLUKA results, with G. Battistoni, A. Ferrari, and P.R. Sala, Astrop. Phys. **23**, 526 (2005).

Propagation of tau neutrinos and tau leptons through the Earth and their detection in underwater/ice neutrino telescopes, with E. Bugaev, Y. Shlepin and I. Sokalski, Astrop. Phys. **21**, 491 (2004).

Measurement of Atmospheric Muon Neutrino Oscillations, Global Analysis of the Data Collected with MACRO Detector, with the MACRO Collaboration, Eur. Phys. J **C36**, 323 (2004).

The FLUKA atmospheric neutrino flux calculation, with G. Battistoni, A. Ferrari, and P.R. Sala, Astrop. Phys. **19**, 269 (2003).

Comparison of the FLUKA calculation with CAPRICE94 data on muons in atmosphere, with G. Battistoni, A. Ferrari, and P. R. Sala, Astrop. Phys. **17**, 477 (2002).

A 3-Dimensional Calculation of Atmospheric Neutrino Flux, with G. Battistoni, A. Ferrari, P. Lipari, P. R. Sala and T. Rancati, Astrop. Phys. **12**, 315 (2000).

Measurement of the atmospheric neutrino induced upgoing muon flux using MACRO, with the MACRO Collaboration, Phys. Lett. **B434**, 451 (1998).

Atmospheric neutrino flux measurement using upgoing muons, with the MACRO Collaboration, Phys. Lett. **B357**, 481 (1995).

Synergistic Activities

- Coordinator of Astrophysics Working Group in ANTARES
- Member of Publication Committees of IceCube and ANTARES
- Member of the Trigger and Filtering board of IceCube
- Member of Symbiosis II project: Physics for Biology for Madison
- PI of the WIYN/VERITAS/IceCube observation program
- PI of teaching grant on e-learning for Laboratories of Fundamental Physics at U. of Bari
- PI of travel exchange program on astrophysical neutrino source searches between IFIC-Valencia and INFN-Bari
- Presented lectures at PhD International Schools on Cosmic Ray Physics.

List of Collaborators

The IceCube Collaboration

The AMANDA Collaboration

The ANTARES Collaboration

The NEMO Collaboration

The MACRO Collaboration

F. Aharonian, Max Planck Inst., Heidelberg

L. Anchordoqui, Northwestern U., Boston

M. Cirelli, Saclay, Paris

G. Battistoni, Milano, INFN

P. Sala and A. Ferrari, CERN

F. Ronga, Laboratorio Nazionale di Frascati, INFN