europass Curriculum vitae

al fine della pubblicazione

NAME

Maria Carnesale

EDUCATION AND TRAINING

Nov 2019 - present

PhD

Università degli studi di Roma La Sapienza

Supervisor: Prof. Cesare Bini

Thesis Title: Precision studies of the decay properties of the Higgs boson with the ATLAS experiment at LHC

Oct 2017- Oct 2019

Physics Master Degree

Università degli studi di Roma La Sapienza

Supervisor: Prof. Cesare Bini

Curriculum: Particle and Astroparticle Physics

Thesis Title: Study of muons reconstruction with the New Small Wheel detectors for the upgrade of the Atlas experiment

Grade: 110/110 cum laude

Sept 2017

Physics Bachelor Degree

Università degli studi di Roma La Sapienza

Supervisor: Prof. Francesco Sciortino

Thesis Title: La funzione d'onda dell'H_2^+: calcoli esatti (H_2^+ wave function: analytical solution)

Grade: 110/110 cum laude

AWARDS

2021

Winner of call for university students mentorship

Next semester I will be tutoring university students for matematical courses.

2020

Sapienza "Laureato Eccellente" Award

"Excellent Graduate" award given by "Roma Sapienza Foundation" for the Master Degree in Physics

2018

INFN Scholarships

INFN scholarships for scientific training activities for university students

2018-2016

Sapienza Student-collaboration Scholarships

Sapienza Student-collaboration Scholarship as librarian in the Physics Department

2014

University Path of Excellence

Admission to University Path of Excellence in academic year 2014/2015, successfully completed in 2017.

WORKING EXPERIENCE

Nov 2020 - present

Studies of the decay properties of the Higgs boson

PhD Thesis: I am contributing to the analysis of the precision measurements of the properties of the Higgs decays and its couplings to the SM particles with the data collected by the ATLAS experiment.

Nov 2020 - present

Studies of muon reconstruction and calibration for the ATLAS experiment

Qualification task for the ATLAS experiment

I work on the calibration of the new muon detector within the ATLAS software. I also work on the implementation of new algorithms for tracking and reconstruction, including studies of the perfmances of the new detector.

TALK AT CONFERENCES, WORKSHOPS, SEMINAR AND POSTER SESSION

14-18/09/2020

106° congresso SIF

"Studio della calibrazione e delle performance delle New Small Wheels dell'esperimento ATLAS" (Study of calibration and performances of the New Small Wheels of the ATLAS experiment)

Talk in a parallel session

27/09/2019

105° congresso SIF, Universitá dell'Aquila

"Ricostruzione di muoni nell'esperimento ATLAS con la New Small Wheel" (Muon reconstruction in the ATLAS experiment with the New Small Wheel)

Talk in a parallel session

PERSONAL SKILLS

Mother tongue: Italian

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1

Levels: A1 and A2: Basic user – B1 and B2: Independent user – C1 and C2: Proficient user
Common European Framework of Reference for Languages

Computer skills

- During my Bachelor Degree in Physics I successfully passed the exams: • Calculation Laboratory(30/30) • Computational Physics Laboratory (30/30) both concerning programming in C language.
- In my Master thesis project I worked in Python, using Keras/Tensorflow for development of Deep Neural Networks
- During my PhD program I developed my skills in C++ and python programming working at the ATLAS software

F.to Maria Carnesale