

PERSONAL INFORMATION

Riccardo Longo



JOB APPLIED FOR
POSITION
PREFERRED JOB
STUDIES APPLIED FOR

Teaching Assistant

WORK EXPERIENCE

September 2014 – Today

Teaching Assistant at University of Torino

- Teaching Assistant of "Laboratory of advanced technologies in Physics" at Master Course in Complex Systems, University of Torino/Piemonte Orientale, with Prof. Daniele Panzieri;
- Tutor of "Mechanics" at Degree Course in Physics, University of Torino;

Business or sector Teaching of Physics;

January 2014 – June 2014

Laboratory Assistant during the course of "Physics Laboratory II"

- Assistance to the students to do experience about optics and electromagnetism;
- Holders of the course: Prof. Michela Chiosso, chiosso@to.infn.it, Prof. Stefania Beolè, beole@ph.unito.it ;

Business or sector Teaching of Physics;

1 July 2013 – 20 September 2013

Summer Student

European Center for Nuclear Research (CERN), CH-1211 Geneva 23 Switzerland
<http://home.web.cern.ch>

Supervisor: Dr. Angelo Maggiora, maggiora@to.infn.it

- Use of FLUKA to simulate physics frameworks;
- Simulation of the setup of the COMPASS experiment using FLUKA;
- Analysis of the energy loss and of the multiple Coulombian scattering of the pion beam in the COMPASS target;
- Analysis of the dose accumulated in the COMPASS target in one year of run;
- Simulation of a particular setup used for the irradiation test of the target holder at Bonn (COMPASS internal note 2013-9 submitted on 08/2013);

Business or sector High Energy Particle Physics

September 2010 – Today

Private teacher for High School students

I give private lessons at home to students which have difficulties in Maths and Physics;

- More than 70 students followed among the years.

Business or sector Teaching of Physics;

EDUCATION AND TRAINING

September 2009 – July 2012

Bachelor's Degree in Maths and Applications, curriculum Application to Physics

Level 6 EQF

Università degli studi del Piemonte Orientale, Dipartimento di Scienze e Innovazione Tecnologica, Viale Teresa Michel n 11 - 15121 Alessandria, tel: +39 0131360101 - fax: 0039 0131360391

- Average evaluation of the exams : 30/30;
- Title of the Thesis : "Studio dell'accettazione dei nuovi rivelatori a grande area dell'esperimento COMPASS";
- Date of graduation: 24/07/2012;
- Supervisor: Prof. Daniele Panzieri, panzieri@to.infn.it ;
- Co-Supervisor: Dr. Stefano Takekawa, takekawa@to.infn.it ;
- Final Mark 110/110 cum laude (*110/110 e lode*);

September 2012 – July 2014

Post Graduate Master's Degree in Physics, curriculum Nuclear and Sub-Nuclear Physics

Level 7 EQF

Università di Torino, Dipartimento di Fisica, Via Pietro Giuria 1, 10125 Torino
Tel.: 0116707480 - Fax: 0116707020, e-mail segreteria.df@unito.it

- Average evaluation of the exams : 29.92/30;
- Title of the Thesis : "The Sivers Asymmetry in Drell-Yan processes at COMPASS: study of the experimental apparatus and of different extraction methods";
- Date of graduation: 22/07/2014
- Supervisor: Prof. Michela Chiosso, chiosso@to.infn.it ;
- Co-Supervisors: Prof. Daniele Panzieri, Dr. Stefano Takekawa;
- Final Mark 110/110 cum laude and honour mention (*110 e lode con menzione d'onore*);

November 2014 - Today

PhD student in Particle Physics

Università di Torino, Dipartimento di Fisica, Via Pietro Giuria 1, 10125 Torino
Tel.: 0116707480 - Fax: 0116707020, e-mail segreteria.df@unito.it

I'm actually working on the extraction of the Sivers and Boer-Mulders asymmetries from SIDIS and Drell-Yan data, both collected by the COMPASS experiment at CERN. I'm developing a new Monte Carlo chain Geant4 based, in order to correct the data for the effects due to the acceptance of the experimental apparatus.

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2
Preliminary English Test					

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Communication skills ▪ Good communication skills gained through my experience as private teacher;

Organisational / managerial skills ▪ Good attitude to work in complex organizations, as a member of a large collaboration team;
▪ Experience in the organization of a laboratory dedicated to teaching (at University level);
▪ Member of the Local Organizing Committee of the first “Conferenza Italiana degli studenti di Fisica (CISF)”, 15th – 17th May 2015;
▪ Representative of the PhD students in the Physics Department Council (Univeristy of Torino);
▪ Chair of the AISF Local Committee of Torino (since June 2015);
▪ Member and chair of the Local Organizing Committee of the second “Conferenza Italiana degli studenti di Fisica (CISF)”, 22th – 24th April 2016

Job-related skills ▪ Good knowledge of mathematical analysis tools;

Computer skills ▪ Very good experience in the use of *root* (<http://root.cern.ch/drupal/>) and good knowledge of its programming language;
▪ Very good knowledge of the C, C++ programming language;
▪ Very good knowledge of the Physics Analysis Software Tools (PHAST) framework;
▪ Good knowledge of Geant4 transport code;
▪ Basic knowledge of FORTRAN77 and Python;
▪ Good knowledge of cmake;
▪ Good command of OS, Linux and Windows operative systems;
▪ Good command of Microsoft Office™ tools;

Driving Licence ▪ B

 ADDITIONAL INFORMATION

Publications

- “FLUKA simulation of the irradiation dose on the Compass PT material holder”, COMPASS internal note 2013-10, co-author with A. Maggiora, D. Panzieri and G. Milani;
- “Observation of a new narrow axial-vector meson $a_1(1420)$ ”, co-author (COMPASS collaboration paper);
- “The spin structure function g_1^p of the proton and a test of the Bjorken sum rule”, co-author (COMPASS collaboration paper);
- “Interplay among transversity induced asymmetries in hadron leptonproduction”, co-author (COMPASS collaboration paper);
- “Resonance Production and $\pi\pi$ S-wave in $\pi^- + p \rightarrow \pi^- \pi^- \pi^+ + p_{\text{recoil}}$ at 190 GeV/c”, co-author (COMPASS collaboration paper);
- “Longitudinal double spin asymmetries in single hadron quasi-real photoproduction at high p_T ”, co-author (COMPASS collaboration paper);
- “Leading-order determination of the gluon polarisation using a novel method”, co-author (COMPASS collaboration paper);
- “Multiplicities of charged pions and unidentified charged hadrons from deep-inelastic scattering of muons off an isoscalar target”, co-author (COMPASS collaboration paper);

Presentations

- “FLUKA simulation: irradiation test of the polarised target material holder”, Drell-Yan (DY) subgroup meeting, CERN, 16th September 2013;
- “Status of the MC studies: realistic beam implementation and TGEANT for DY”, DY subgroup meeting, CERN, 10th April 2015;
- “Drell-Yan in TGeant: “status of the art”, DY subgroup meeting, CERN, 8th May 2015;
- “New vertex position generation approach in TGeant: First validation”, DY subgroup meeting, CERN, 12th June 2015;
- “Status report of TGeant4DY project”, DY subgroup meeting, CERN, 25th August 2015;
- “Express analysis”, DY subgroup meeting, CERN, 11th September 2015;
- “TGeant status update: resolutions”, DY subgroup meeting, CERN, 18th November 2015;
- “Beam properties from 2014 “BMS-run”, DY subgroup meeting, CERN, 15th January 2016;
- “First look at 2015 data (W10)”, DY subgroup meeting, CERN, 15th January 2016;
- “2014 MC: first look and beam exercise; and 2015 TGeant MC: status”, DY subgroup meeting, CERN, 22th January 2016;
- “Drell-Yan: First look at data and MC”, COMPASS Analysis Meeting, 27th January 2016;
- “TGeant MC for 2015 DY”, DY subgroup meeting, CERN, 9th March 2016;

Conferences

- Parallel talk at the International Conference of Physics Students (ICPS), “Study of the 3D proton structure”, Heidelberg, 11th August 2014;
- Plenary talk at Spin Praha 2015 Conference, “COMPASS Drell-Yan program”, Praha, 27th July 2015;
- Talk at the first AISF Particle beers, “Exploring the Nucleon structure @COMPASS”, Torino, 20th January 2016;
- Parallel talk at the XII Confinement Conference, “Polarized Drell-Yan @ COMPASS”, Thessaloniki, 2nd September 2016;
- Other Conferences attended without direct scientific contribution: “NPQCD 2015” (Cortona, 20th – 22th April 2015), “IWHSS 2015” (Suzdal, 18th – 20th May 2015), “The p-He cross section measurement: a physics case from cosmic rays” (Torino, 6th – 7th July 2015),

Honours and awards

- Awarded as best graduated student in the Bachelor’s Degree in Maths and Applications for the Academic Year 2011/2012 by the Department of Advanced Science and Technology (Università del Piemonte Orientale, Italy);

Memberships

- Associated to the Istituto Nazionale di Fisica Nucleare (INFN), sezione di Torino since 24/06/2013;
- User at the European Center for Nuclear Research (CERN) since 02/07/2013;
- Co-founder of Associazione Italiana Studenti di Fisica (AISF) and member of it since its born;
- Deputy Chief Executive Officer and Local Coordinator of the International Conference of Physics Student 2017;